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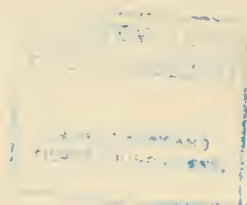


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HANDICRAFTS IN THE HOME







CUTTING A STENCIL.

HANDICRAFTS IN THE HOME

BY

MABEL TUKE PRIESTMAN

AUTHOR OF "ART AND ECONOMY IN HOME
DECORATION" AND "ARTISTIC HOMES"

WITH SEVENTY-FIVE ILLUSTRATIONS



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PREFACE

PARTS of this book have already appeared in magazines, and I take this opportunity of thanking the Editors of *American Homes and Gardens*, *The Delineator*, *The Designer*, *Harper's Bazaar* (Harper & Brothers), *Home Needlework Magazine*, *House Beautiful*, *The International Studio*, and *New Idea Women's Magazine*, for their courtesy in allowing me to republish text or photographs which they have previously published.



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HANDICRAFTS IN THE HOME

CHAPTER I

INTRODUCTION

THIS book is not intended to take the place or lessen the need of a thorough training in design and craftsmanship, such as is obtainable at the Art Schools, but it is hoped that it may gain recruits from those who know not the joy of fashioning with their hands objects of usefulness which are also things of beauty.

The author has endeavoured to show how certain crafts may be done quietly in the home by mother or daughter, in town or country, as a relaxation, and to drive away the dreariness that comes from a lack of congenial occupations, or as a means of earning money.

It has been found in the Public Schools

that teaching handicrafts has been of immense value in the training of the child. Weaving in the little frames has been the means of teaching perseverance, patience, and self-control ; and if this is so with young children, it stands to reason that the same qualities will be strengthened in those of riper years. In charitable institutions the introduction of handicrafts is of inestimable value, and although it has been done to a very slight extent, the development of this idea cannot be too strongly urged. In homes for the aged the dreary hours spent in idleness could be made of value and comfort, and purpose might be brought into the lives of these old people, whose chief interest in life has left them because they feel themselves so useless. If they could be taught to make even such simple things as braided and crocheted rugs, the fact of being able to make these and give them to their friends would bring a new interest into their lives. The results of experiments made as to the effect of handicrafts on the feeble-minded or for nervous cases have been most encouraging, and tend to prove how beneficial work of this kind is to those, whether old or young, who are physically exhausted and mentally deficient.

There are some women that have so little in their lives that the pity of it is overwhelming. When the daily household duties have been attended to they are entirely without resource. In the winter they sit in a chair by the window with the shade almost down, peeping at the passer-by, and in the summer they rock for hours on the porch. They frequent the waiting-rooms of the railway station and large stores, merely to kill time, and to watch those around them. If a love for making useful things could be brought to such people their entire outlook would be changed, and life would become more full of meaning.

The life of a craft-worker gradually grows more and more sincere as the love for good honest workmanship develops the worker, and she becomes dissatisfied with the commonplace and is more in earnest in all she undertakes.

The author hopes that *Handicrafts in the Home* may be the means not only of helping those already interested, but also many who have not yet learned the joy of bringing the creative faculty into force; and while no attempt has been made to deal with all the crafts, or those that entail an expensive outfit,

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still enough perhaps has been given to point the way to enable a beginner to find her latent talents, which may be further developed either by attending classes or by studying some of the excellent books on special crafts which have already been published.

CHAPTER II

PIERCING SHEET METAL

WORKING in sheet metal appeals very strongly to all craft-workers. There are a great variety of methods in which it can be treated. First there is the bending and beating of the metal into all kinds of useful articles, and then the decision of how it shall be ornamented. It can be beaten on the wrong side, and the design pushed out with a hammer, when it is called "Repoussé," or it can have the design eaten out with an acid, which is known as "Etched Metal." Another process is the cutting out of the design with a fret saw. This is called "cut" or "pierced" brass, and is the method I will now describe.

It is most fascinating work to do, and is creating much interest among all craft-workers. It is not as difficult as it looks, and a good deal of very decorative work can be done with a simple equipment at a comparatively low cost. A rough table or shelf, if there is

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no work-bench in the house, can be made use of, and attached to it must be a metal vice.

The following list of tools will be required for piercing, or other forms of metal work :—

One pair of metal shears for cutting the metal.

Hard-wood mallet.

Medium-size hammer.

Several files and pliers (both round and flat).

Wood rasp.

Nail set.

No. 40 hand drill.

Sheet-metal-worker's saw, or an ordinary scroll saw.

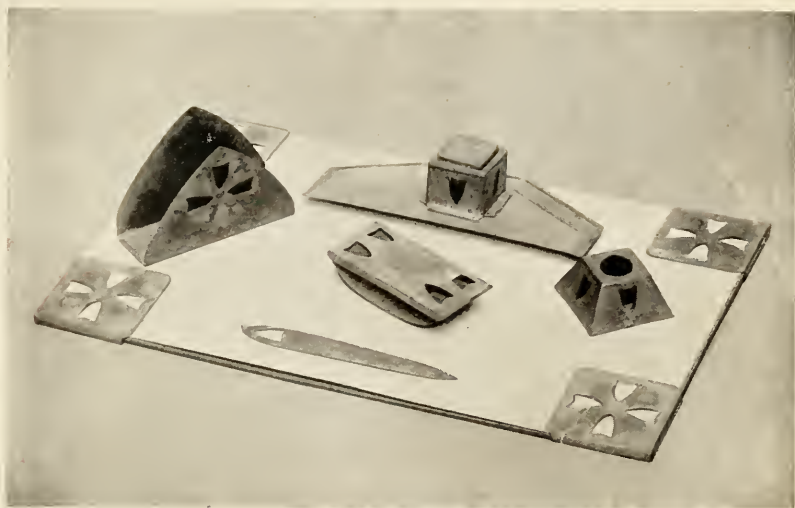
These few tools will cost about \$3.00. The metal market is so fluctuating that list prices cannot be guaranteed, however. These tools can usually be obtained from kindergarten supply shops, but if an ironmonger's shop is available, the tools can probably be bought at less cost from it. They can also be had from artist colourmen, who often supply sets of tools for metal-workers.

The following materials must also be provided :—

Soft sheets of copper, any thickness from 20 to 24.

A hard-wood block, 9" \times 12" \times 2".

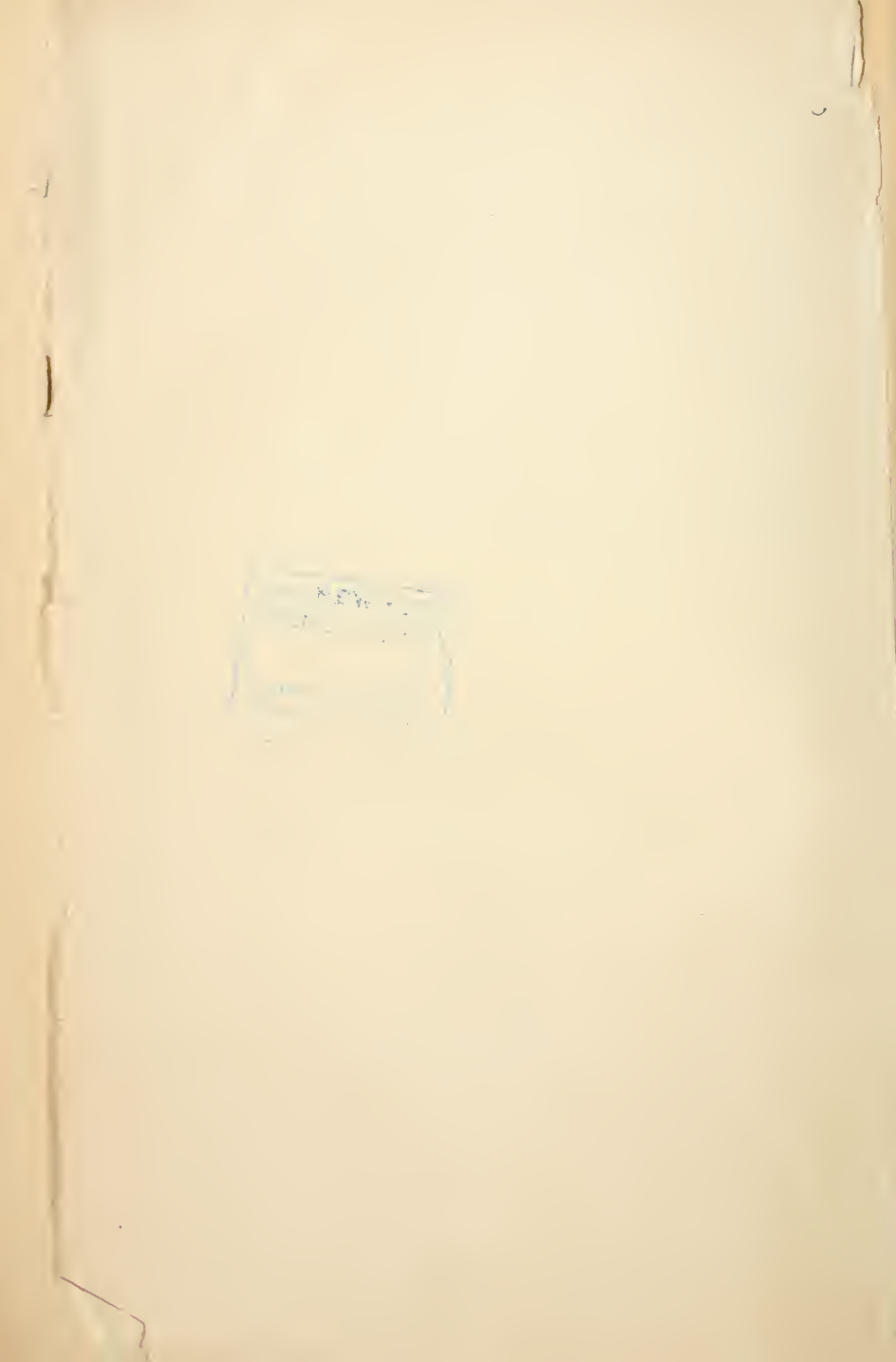
Metal block, 3" \times 4" \times 1" (the latter may be picked up at an iron foundry or stove store), or a household iron can be used.



PIERCED COPPER MADE BY STUDENTS OF THE FOREST CRAFT GUILD



SHADE AND LAMP DESIGNED AND EXECUTED BY
STUDENT OF THE FOREST CRAFT GUILD



Copper rivets, and some 20-, 10-, and 6-penny wire nails.

Having provided the above necessities, the worker can take up not only cut brass, but all the other methods of working up sheet metal.

One of the simplest pieces to begin on is a lamp shade. A suitable lamp must be selected either in metal or pottery. Beautiful odd pieces of Teco or Japanese ware can often be found, and these can have a copper or brass fount fitted to them. These founts come in several sizes, and can be found in stores where lamp supplies are carried. After the lamp is provided, the shade must be made to suit the contour of the lamp. Notice how beautifully proportioned the lamp illustrated is. The vase is of green pottery, and the fount and lamp shade are of copper. Under the shade are panels of green grass.

The first thing to do when making a shade is to plan the design. Suppose the lamp is one of medium size. A good measurement for the shade would be the following :—

| | |
|---------------------------------------|------------|
| Length | 10 inches. |
| Circumference at the bottom | 16 „ |
| Top horizontal edge | 4 „ |

It is best to cut out the panels in Bristol

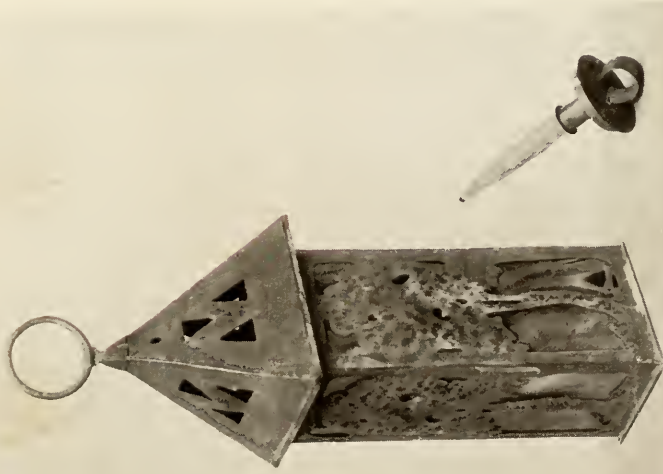
board, and plan the design on the sheet. If the worker has no knowledge of design, she will have to adapt bought ones to her special needs. Braided patterns can sometimes be utilized, and are often quite bold. They come on tissue paper, and have to be transferred by means of a warm iron. Then there are a great many good designs in the needlework department of the large drapery shops. Failing to find what is needed, try an artist colour-man who supplies designs for pyrography. Sometimes they are suitable for metal. There is no doubt that those who understand designing get much more individuality into their work by making their own designs. In looking at the illustration of the shade, it will be noticed that there is a margin all round each panel. This must always be there for any design for cut brass ; it serves as a frame to which the motif is joined to the border of the metal. Notice how pleasingly the spaces in this shade are broken up. There are no sharp corners, nothing but beautiful harmonious curves.

To make a shade, procure a piece of copper or brass of any thickness between 20 and 24. As glass is to go behind the metal, 21-gauge would be the best to select ;

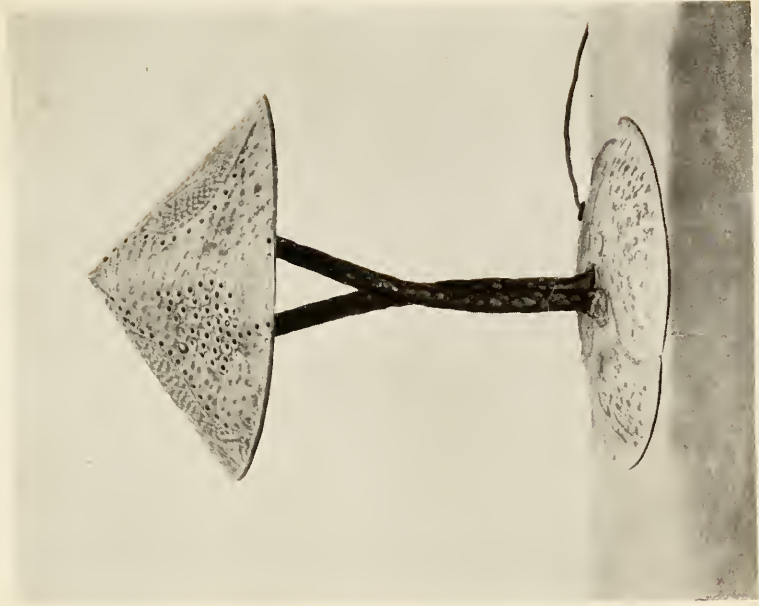
then lay the Bristol board pattern on the sheet of metal, and go round the pattern with one of the sharp-pointed tools, or a nail. When all the panels are indicated on the metal, cut them out with the shears, leaving half an inch at the bottom for bending over. Make four tracings of the design on the Bristol board in ink by means of Japanese rice paper. Now paste these on to the panels with stiff flour paste. When dry, they are ready for sawing.

Bore a hole through every background space with the hand drill. Then insert the saw, the free end being pushed through the metal, and fasten it to the other end of the saw frame. Now hold the metal, and fasten it to the other end of the saw frame, holding the metal on the table with the left hand. Then begin to saw with the right, turning the metal from time to time as the direction of the line changes. Hold the blade in a vertical position. At first the sawing is difficult, but after a little practice the saw moves easily. It is a good thing to put a little beeswax on it every now and then. When all the spaces have been sawn out, soak the paper off the panels, and then file the edges of each opening. Now take strips

of paper seven-eighths of an inch wide and fold. Then bend it to an angle, and fit it over one corner, marking where the bottom and top of the shade will be. Then cut the strip for the pattern. Now cut from the metal four pieces the same size, and in them bore a double row of holes for the rivets one-sixteenth of an inch from the edge (not in the centre of the strip as in the shade illustrated, as this way is not so easy for the beginner). Choose a rivet with a head one-eighth of an inch, which is a useful size. A drill for making the rivet must have been provided. It is very important that the pin fits snugly into the rivet holes, and they will need filing as they will be a bit rough. The top and bottom of each panel must be hammered with the wooden mallet on the edge of the block, to bend it at an angle; later this will be bent up, to make a neat finish at the top and bottom of the shade. Some workers prefer to bend the metal for the corners when it is held in the vice, instead of just holding it on the block, but the choice must be left to the worker. The corners of each panel will need the turned-over pieces riveted; the corners can be pinched firmly together with nippers. The rivets must be put inside the shade, which



HALL OR PIAZZA LANTERN WITH BAYBERRY CANDLE



ELECTRIC LAMP FROM THE FOREST CRAFT GUILD

Candle shades are usually made in the same way, or, if preferred, they can be in one round piece, when they will only need riveting at the joint. The experience gained in making one with four sides will make the round ones seem very easy. A glass shade can be used underneath, or silk can be placed over isinglass, and the metal shade over these. The isinglass and plain silk shades can be bought ready-made, as they are much used under silver shades for the dinner-table. Grass cloth also makes a nice lining for metal candle shades, but these are not so heavy as glass. They do not come ready-made, but are quite easy to make on a frame: the grass cloth can be obtained from a good paper-hanger, who will often clear out remnants at small prices.

The book-racks, shade, and hat-brush show some interesting work of the students of the Pratt Institute, Brooklyn.

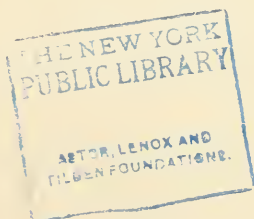
The two book-racks in our illustration are made of wood, and have the ends covered with pierced brass. Unless the worker is familiar with the methods of working in wood, it will be best to buy some book-racks ready made. The brass, after it is shaped, can be pierced as already described.



PIERCED METAL MADE BY STUDENTS OF THE PRATT INSTITUTE, BROOKLYN



JEWEL CASES, THE WORK OF AUSTRIAN STUDENTS



The decorative qualities of these depend a good deal on the little brass nails which hold metal and wood together. The candle shade, with its very simple design, needs no further description. Some workers always make a point of turning the edges over the lamp or candle shades. This one is left unbent, but, of course, the edges are carefully filed.

The back of the brush has the background hammered; 40-penny nails are used for indenting the metal. When the point is filed off it makes a cheap and convenient tool for this purpose. The brass brush-back cover is held in place by being tightly hammered on to the wood. The little dents on the rim help to make it grip the bench.

One of the illustrations shows a candle sconce of pierced brass, which is done in the following manner :—

The centre portion is beaten by a mallet on a soft block, on the wrong side, then the rivet holes are punched, and finally the design is pierced. Two pieces of brass are cut out from the same pattern, and the pierced part is riveted on to the undecorated part. The bracket for the candle must be made by describing a 2-inch circle with a compass on the brass, and then it is cut out

for the drip cup. In order to hollow it, set the hard-wood block on end in the vice, and with the ball end of the hammer strike firmly until an even hollow is formed in the wood. Now take the circular drip cup, and place it in the hollow. Then with the round end of the mallet beat the disk until it becomes an even, well-made saucer. Turn the metal with the left hand while beating with the right. When this is done, reverse the block, and hold the saucer on the edge, and beat with the round end of the hammer, just inside the edge resting on the block, which will round it up nicely, and give more depth. Then the cup and the handle must be made from a disk larger than the saucer, bending the sides into the shape of a candle-holder. Then drill a rivet-hole through the cup and saucer, and through a strip of metal which should have been left on the bottom for a bracket. After making a hole in this, rivet all three pieces together, striking from above. A little candle-holder can be placed inside the brass one to keep the candle from wobbling. These can be bought ready-made, though sometimes craft-workers prefer to make their own.

The jewel-cases show the work of advanced

students, and they are made of copper with brass overlaid and riveted. Most of the ornamentation is repoussé work, hammered on the wrong side into low relief on a hardwood block. The four sides of the jewel-cases are made from a strip of copper. The design is drawn by means of a carbon on the wrong side, and beaten with a blunt nail until the delicate tracery bears little resemblance to the original. It is then bent into box shape, and riveted firmly where one of the brass ornaments will hide it. The bottom is cut out, and the four sides are bent neatly over. The copper lid is hammered with a wooden mallet until the oblong hollow is made, and then the centre ornament is carefully worked up. The edge of the lid is bent back to make it heavy, and it is then finished off by a band of brass riveted over the join. These copper and brass jewel-cases were made by students at an Art School in Austria. The work of these students is excellent. Many people buy these copper and brass pieces in America, seldom realizing that Austrian metal work is almost always the handwork of individual artists.

CHAPTER III

REPOUSSÉ WORK

THE more advanced processes of metal work, such as delicate embossing chasing, and enamelling, require an extensive outfit, but a great deal that is very decorative can be done with a very small equipment. The following is a list of the necessary tools :—

- Small pair of metal shears.
- Round-faced steel hammer, medium size.
- Hard-wood mallet.
- Round file.
- Round pliers.
- Flat pliers.
- Medium wood rough file.
- Small rivet set.
- Nail set.

The materials that will be required are :—

- A metal vice.
- Several sheets of fine emery-paper.
- Several sheets of brass.
- Several sheets of copper.

Several sizes of wire nails.
Metal block for riveting.
Hard-wood block.
Soft-wood block.

HOW TO MAKE A BOWL

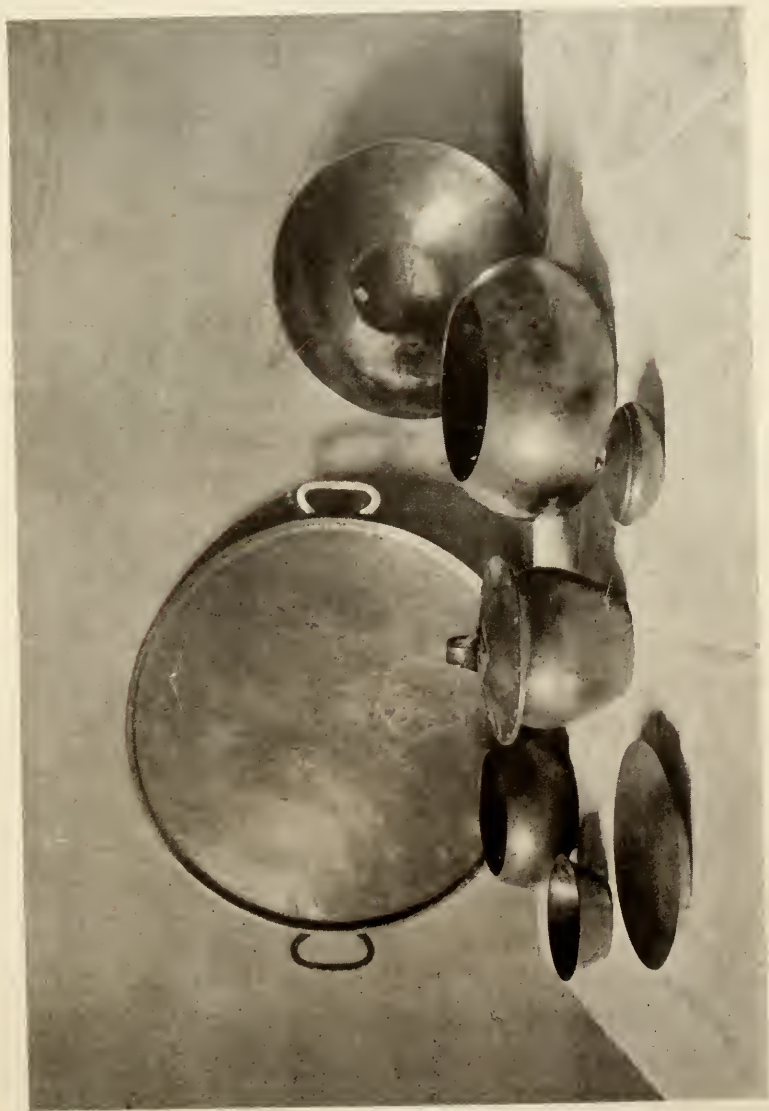
It is best for a beginner to start with the making of a bowl. Take a piece of 19-gauge sheet copper, and with the aid of the compass make two inner circles, with a 2- and the other with a 1-inch radius, keeping the same centre. The copper must then be cut outside of the outer circle with the shears, and the edges must be filed to remove any roughness. Then place the hard-wood block in the vice. A work-bench is very desirable for doing metal work, but, as it is not essential, the edge of a table or a shelf can be used as a substitute. In the end of the hard-wood block a circular depression half an inch deep and 2 inches wide must be carved. After the block has been adjusted in the vice, place the metal on it, and hammer with the mallet three-quarters of an inch from the edge, from the hollow, continuing in the circles until the inner circle is reached. The round-faced steel hammer is then used. Strike with even blows, so that no ridges will be left between

the impressions, turning the bowl round and round until the desired shape is obtained.

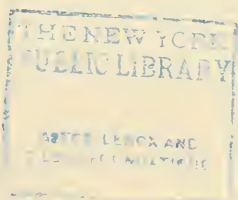
The next process consists of placing the metal over a flat piece of hard wood, hammering gently over the entire surface until all the uneven places have disappeared. It is important that the bottom of the bowl should be perfectly flat, and this is gradually brought about by careful hammering.

After this, the copper must be cleansed. This is done by immersing it in a pickle consisting of two tablespoonfuls of sulphuric acid diluted in a gallon of water. Rinse well and dry.

The colouring of the bowl can then be decided upon. It may be rubbed with oil, and then subjected to a slow even heat, or, if a bright finish is desired, it must be rubbed with different grades of emery-paper. Copper, being a more ductile metal, is much better than brass for beating up into as deep an object as a bowl. The process of heating gets it into a pliable condition, as the copper stiffens by being hammered. The annealing may be done by placing the metal in a stove or furnace, or by forcing the gas flame upon it. Heat it to a rosy red and cool slowly.



EASY SHAPES TO MAKE IN REPOUSSÉ WORK
FROM SHOW ROOMS OF THE NATIONAL SOCIETY OF CRAFTSMEN, NEW YORK



COPPER TRAY

A copper tray is another of the easy things upon which beginners usually try their skill. The piece of metal, instead of being placed in the concave ends of the block, is hammered with the wooden mallet on a flat surface. The edge of the tray has the same treatment as the shallow bowl. The edge is turned over the angle of the block, and hammered with the mallet until it is ready for the handles. These are made from a strip of copper, which is rounded by hammering on the edge of the block in the same way that the rim of the tray was rounded. The ends are flattened by hammering with the steel hammer. The work is made easier by slightly heating, when the round effect of the handles can be obtained by deftly hammering. The edges must be neatly filed and again hammered, so that the join hardly shows. Rivet holes are then drilled in the ends of the handles, and corresponding ones in the tray. They should be made a little larger than the rivets.

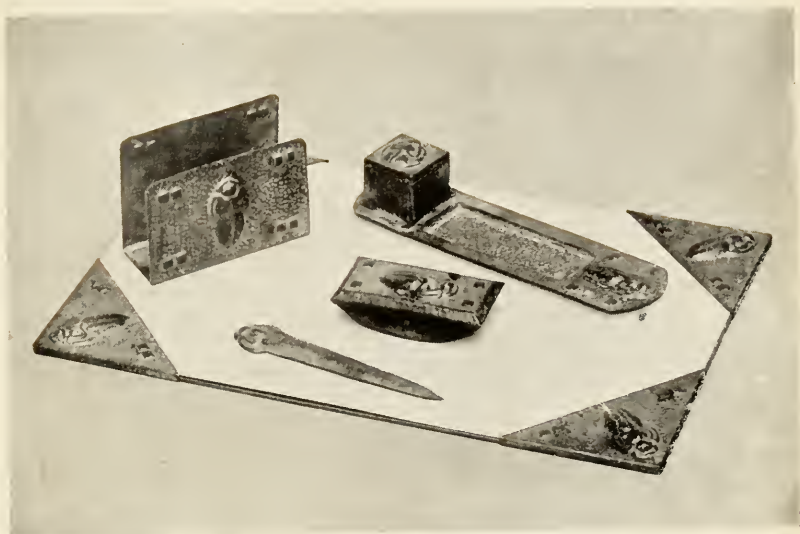
The process of punching will raise a slight rim round the holes, which must be first filed and then beaten flat with the hammer upon

the metal block. If the hole is too small for the rivet, it can be enlarged by the reverse end of the file. It is important to see that the rivets fit snugly in the holes, as a loose rivet is not workmanlike. When the rivet is placed in the hole, some strong taps of the hammer will make it taut.

REPOUSSÉ WORK

It will be noticed in our illustration of platters and a desk set, that some of the pieces are decorated in repoussé work. This is done by beating up from the back of a yielding bed, which may be either of soft pitch or pine wood. The illustrations show only low relief, which can all be done on the pine block.

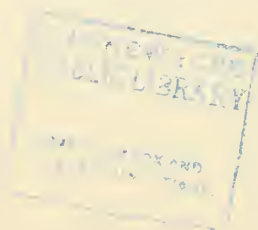
Trace the design by means of a carbon paper on to the prepared metal. It will be found that the design becomes effaced by the hand repeatedly passing over it, so it is advisable to go over the design with a scratch point, or a dressmaker's pin wheel. The design is brought out by stamping the background. This process raises the design until it presents an embossed appearance known as repoussé. The beating can be done by means of a 10-



REPOUSSÉ DESK SET



PHOTOGRAPH FRAMES IN REPOUSSÉ



penny hammer and a nail which a girl can readily make for herself. File a 10-penny nail straight across the point so as to produce a small square stamp. Then file a 20-penny nail until it is filed above the shaped point. Smooth these nails with emery-paper, so as to get rid of any sharp edges. As the filing of the tools takes out the temper, this must be replaced by heating to a red heat, through the point, and plunging instantly into cold water. Now begin to hammer with these tools, until the whole background is covered, leaving the design which is to be in relief untouched. Care must be taken not to go over the line of the design. Another point to be remembered is to keep the stamping of an even depth throughout. As this repoussé is in low relief, it is not necessary to heat the work. High relief necessitates frequent softening of the background by annealing.

When the background is all stamped, its roughened surface presents a pleasing contrast to the repoussé part. This simple process only needs a little practice for the beginner to gain skill and to do beautiful and artistic work. It will be noticed that the platters are of much heavier metal than the stamp boxes and pen tray. Experience is the best

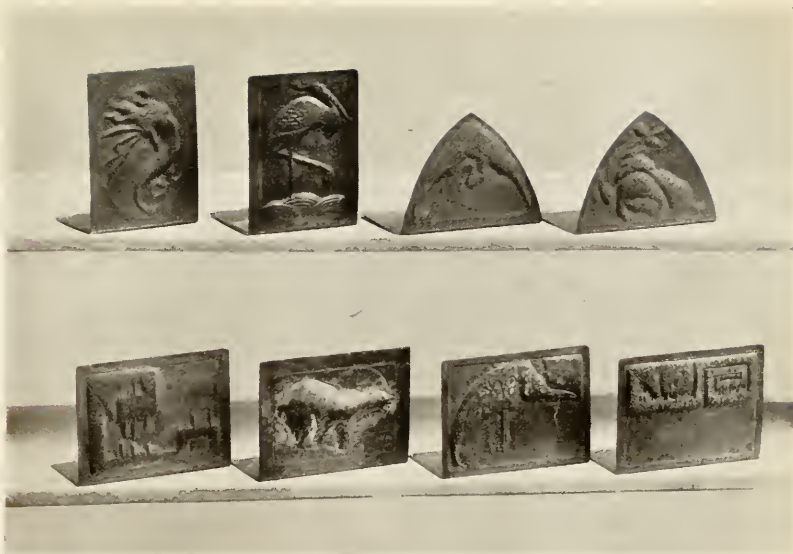
teacher as to what gauge of metal to use for each object.

Sheets of brass are sold in several sizes and of various thickness.

Great care should be taken in making the design for repoussé work, as any carelessness in drawing cannot, after it is on the brass or copper, be corrected. Extreme care should be taken when tracing the designs on this account. When working on metal, every blow struck leaves an indelible impression which cannot be removed.

It is well for the beginner to buy some waste brass on which to experiment, and a few hours spent in this way will save a good deal of disappointment in supplying good material. When laying sheets of metal on the block, it is most important that they should lie as level as possible. In order to do this the metal must be screwed to the block, the screws being placed outside the margin of the design. The holes for the screws must first be punched with a nail.

Usually a beginner starts in by hammering the metal into deep hollows and furrows on one side. This makes the metal "buckle," so that it is well to go over the pattern with gentle taps. The more the back is worked



BOOK RACKS IN REPOUSSÉ



A BEATEN COPPER SMOKER'S SET

on, the higher will be the relief of the design. The illustrations show the simplest form of hammered work, made from sheets of copper in many varying thicknesses. Where there are very small curves and corners, the worker must use the smallest nails or "transfers," and it will be found that, with a little experience, all the difficulties will be entirely overcome.

CHAPTER IV

ETCHING ON METAL

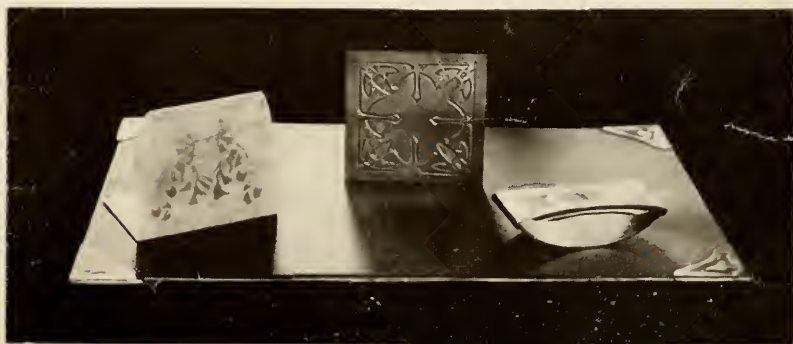
THE making of hammered copper or brass vessels is the same for etching as for pierced, perforated, or repoussé work, but there is a fascination about etching that appeals strongly to the craft-worker.

Copper may be bought in several weights, but for simple objects, such as platters, trays, No. 16 gauge is the best to use. Brass or copper sheets come in several sizes, and one must be chosen that cuts to advantage. Very few tools are required, most of which can be bought from a hardware dealer.

One pair of carpenter's dividers.
One pair of metal shears, No. 9.
Five cents' worth of emery-cloth.
A mechanic's vice.
A flat metal file.
A small wooden mallet.
A ball-pein hammer.
A chisel.



ETCHED COPPER TRAY, THE WORK OF STUDENTS OF THE PRATT
INSTITUTE



ETCHED COPPER BOOK RACKS AND BLOTTERS

THE NEW YORK
PUBLIC LIBRARY

AETOR, LEROX AND
TILLEN FOUNDATION.

A hard-wood block must be purchased, and should be 2 inches thick by 6 inches square. A depression must be cut from the end grain, leaving the top divided in two—half the original height, and the other half depressed. A glass developing tray, 8 × 10 inches, and some sheets of carbon transferring-paper will also be required.

For the etching, the following items must be purchased :—

One pint of nitric acid.

One pound of powdered pumice.

From a paint store :—

One pint of turpentine, and two soft brushes.

This list of necessities will thoroughly equip the craft-worker for making simple pieces, and will last a considerable time for etching.

Plan the design on paper first, and then proceed to shape the tray. Place the dividers in the middle of the tray, and set them two inches apart. Describe a circle in the centre. This will show the part to be depressed. The shaping is done upon the end ground of the hard-wood block, which must have already been cut to the depth of a quarter of an inch.

The block must be held steadily in the vice. Hold the copper upon the wooden block, so that the inscribed circle on the top is on a line with the upper edge of the wooden form below. The next process is the hollowing, by hammering the middle of the tray. Begin by beating just inside the circle, hammering the copper until the entire circumference has been completed. Continue this until the centre is all finished. Then straighten the rim by using the wooden mallet, pounding it on the side of the block. Many people use the bottom of a flat-iron in place of a wooden block, some preferring it to wood. The hammering must be continued on the rim until it is perfectly smooth and even. Sometimes this does not come at once, and need continual striking with even, regular blows. If the copper is too hard, it can be annealed by heating until it is red hot, when it must be plunged into cold water. After this it will be found to yield readily to the blow of the hammer. Either the wooden or metal hammer may be used, or each successively.

When the vessel is completed, the outer edges must be smoothed by filing with an emery cloth. The tray can then be cleaned

by heating slightly, and immersing in a bath of nitric acid, rinsing in water immediately afterwards, and rubbing with a cloth and powdered pumice. The tray is now ready to be etched.

If the artist does not wish to make the copper or brass pieces, all kinds of bowls and trays can be purchased undecorated, which can be treated in the following manner:—

The design is drawn accurately on paper, and then transferred with carbon paper to the metal. Go over the design with a pencil, which will leave a slight indication on the metal. Then proceed to cover the design with asphaltum varnish, which must be of a consistency to drop easily from a brush. The asphaltum protects the metal from the acid, which is to be applied later. When painting the design with asphaltum, endeavour to keep the edges smooth by being careful that the varnish is not too thick. It may be thinned with turpentine until the brush moves easily. Not only must the design be covered, but the bottom, back, and edges of the tray, in order that the acid may eat only the exposed places on the background of the design. Two coats of asphaltum have to be applied four hours apart. If it is found necessary to change the

design at all, the varnish can be scratche away with a penknife.

Take a glass developing tray, or a kitchen crock, and mix a solution of nitric acid and water—a little less than half acid, and a little more than half water. Place the tray face up in this solution, so that it is more than covered as the acid evaporates. If the solution is too strong, brown fumes will be given off and bubbles will rise to the surface. More water must be added if this occurs. Place the crock in some safe place, where it will not hurt the draperies. The fumes are rather disagreeable, so that a convenient place must be chosen; also, do not leave it where children could reach it.

Keep looking at the metal to see how the acid is working. It should be eaten to a little less than one thirty-second of an inch. Sometimes the design is entirely eaten through. All depends upon the wish of the craft-workman as to the quality of the design. Remove the tray with pincers, and soak in a bath of kerosene or turpentine. The varnish may be removed by rubbing the surface of the tray with a cloth wrung out in turpentine. Cleanse the metal with powdered pumice, and paint it with a light coat of this spirit

which will give it a slight colouring. Then heat slowly in an oven or over a gas plate, when it will turn to colours ranging from deep cadmium to purple.

Real individuality can be expressed in this method of ornamenting brass or copper. The work of no two craftsmen is exactly alike, some aiming to let the design be very delicate, while others prefer the acid to eat nearly through the metal. In making a design for a tray, it can either be continuous, or be run around as a border, or, if preferred, a design can be repeated four times at regular intervals. But, of course, the design must all be planned on paper first, and then traced on to the metal.

There are many suitable things obtainable at shops that can be treated in this way—especially paper-knives and desk sets, which make interesting presents, even if the ornamenting is the only part that is original. Many people enjoy experimenting in chemicals, and making designs, who have no love of the actual working in metal, so that this craft is especially well suited to such people.

CHAPTER V

POTTERY-MAKING

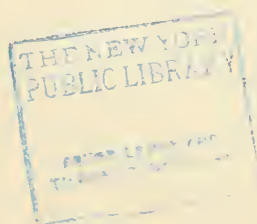
THERE are numerous opportunities for adding beautiful decorative pieces of useful pottery to the home, in the way of lamp bowls, candlesticks, dishes for flowers or fruit, and all kinds of decorative jardinières, and it seems well worth while to learn how to make these at home.

Now that so many interesting clays can be obtained, requiring only an addition of water, the making of pottery comes within the scope of the most unenlightened worker. A few simple potters' tools, a board, rolling-pin, and water are the only requisites. The material is moistened with water, and is kneaded on a board to give it plasticity. It is then rolled with a rolling-pin.

I will describe how the simple lamp vase is being made by the worker in our illustration. After a large piece of moistened clay for the bottom of the bowl has been kneaded



BUILDING UP A PIECE OF CLAY, THE LEFT HAND SUPPORTS THE SIDES
WHILE THE POTTERY IS SHAPED



C

5

2

11

until it is about an inch thick, small pieces are taken in the hand, and the sides gradually worked up and added to, until the whole is built up. The left hand is held inside, and supports the sides while the clay is being added. Tools made on purpose for potters are used for shaving the pieces, but the bulk of the work is done with the hands. This piece of pottery is somewhat crude, but very decorative.

The illustrations show pottery made in this primitive manner. When the clay has slightly stiffened it can then be decorated by being carved with a sharp tool, or a decorative edge can be cut out like the one in the group with the square candlestick.

In order to make a small bowl, take a lump of clay and work the knuckles into it until it assumes the form of a bird's nest. This will save a good deal of shaping when building up the sides. Do not attempt to add too large a piece at first, or it will break off, especially if the sides are high.

When the pottery is perfectly dry, it is sent to a kiln to fire. If the green or white clays are not the colours desired, the pottery can be coloured with ordinary tube oil-colours moistened with turpentine, and a wax finish

given to them afterwards. This is really a very practical and easy method of getting what is known as a mat glaze. Pottery done in this way is not unlike the beautiful Grueby ware.

Simple pottery-making of this kind does not require a room to itself, as there is so little dust in connection with it that it can be made anywhere.

If the craft-worker becomes fascinated with the making of this primitive pottery, and wishes to go into it in a larger way, she will need a potter's wheel. A light and easy one to use is copied from an old French model, and enables the potter to sit while at work. The cost of such a wheel with an iron top and shaft and the wooden fly-wheel is \$18.00, but second-hand wheels can be bought for much less. The wheel is attached to the edge of a table or shelf, and is accompanied with a seat which slants forward. A foot-rest must be placed under the table for use when the wheel is not in motion.

Good potters' clay consists of silica or quartz and alumina, and has good plastic qualities. Most clays possess a considerable amount of potash and alkalies. It is well not to knead the clay too much, as it loses elasticity if overdone.

When starting to work on the potter's wheel, take a lump of clay and work it well into a ball. Then wet the top of the wheel, and dry it, so as not to leave the wheel too wet, or it will slide. It should be slightly dampened, however, or it will stick. Then take the lump of clay in both hands, and throw it firmly on the centre of the wheel. It must be exactly in the centre of the wheel, or it will not be true in contour. Now wet the hands, and rub them over the lump of clay, so that it is thoroughly moist. Then set the wheel in motion.

When starting the wheel, the left foot is left on the rest while the right foot works the outer edge of the wheel, and swings the fly-wheel from right to left. The point of the foot is used for this. Give it four or five turns. Then move the foot nearer the iron shaft, and give five or six more pushes to the fly-wheel, and then place both feet on the foot-rest. As the wheel turns move the fingers slowly upwards, holding the thumbs in the centre and pressing. The outline can be improved by holding a piece of rubber against the vase as the wheel swings round.

In order to make pottery properly, the elbows must be well braced against the side of the

body, so as to hold the hands perfectly steady, for they must not waver or swing with the vibration of the wheel. If the shape is not even, the hands must be wet, and a few drops of water shaken on the clay. Then lay the thumbs together, and press firmly down on the clay as the wheel turns, pressing it again into mound shape. Then wet the hands again, and start the wheel. The clay is now pressed up again into cone shape. Great care must be taken to go slowly and to give an even pressure. When a good cone shape is made, press carefully upwards, with slow, even pressure, moving not more than a quarter of an inch after each revolution. The thumbs are held close together in the exact centre of the clay, and pressed firmly but lightly in, while the wheel revolves several times. This will indicate the centre.

The next process is to hollow out the piece. This is also done with the thumbs. Then wet the hand and start the wheel, and enclose the outer walls of the piece with the fingers, while the thumbs are pressed into the centre of the clay to within an inch from the bottom.

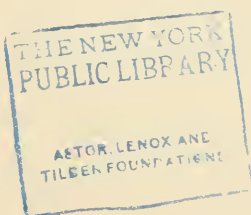
A cylindrical form is the easiest to begin with. The different placings of the hands



SIMPLE POTTERY MADE BY ART STUDENTS OF Y.W.C.A., NEW YORK



A GROUP OF SIMPLE CANDLESTICKS



accomplish various results, and these can only be learned by experience. Rising slowly from the bottom, the right hand presses more than the left, thus hollowing the bottom and walls of the vase. Slowly the hands rise until the top is reached.

If the shape is not quite true, start again from the bottom, and come up pressing hardest where pressure is needed, and going lightly when it is not necessary to alter the shape. The vase may be shaped with the thumbs in front and the two fingers at the back when the neck of the vase has to be formed. This requires much care, or the slender neck will be spoiled.

It is best not to attempt to make a difficult vase at first. The second high vase in the group of five is a good and easy shape for a first attempt at a potter's wheel. Another thing to bear in mind is that the walls must be of an even thickness, about a quarter of an inch thick.

When the top is reached, the edge must be cut even with one of the sharp tools. When the vase is finished it can be loosened from the wheel by a small piece of wire, which is held taut in the two hands, or by a hoe-shape tool supplied in a potter's outfit.

After an hour or two, when the vase has stiffened, it may be smoothed and rounded with an oval-edged tool of sheet steel. Turn the wheel and moisten the tool with water, and bend to fit the curves of the vase, holding the tool at right angles while the left hand supports the wrist of the right. Any roughness can be removed with this tool. Start at the bottom, and move it up gradually with each revolution of the wheel. Then take the rubber polisher, wet it with water, and pass over the surface in the same way. Remove the vase again from the wheel by drawing the wire under it to prevent its clinging to the wheel.

When making pottery, it must never be allowed to dry out, and if the piece started cannot be finished at one sitting, it must be kept covered with moistened cloths. When the greatest diameter of the vase on the wheel is reached, it must be inverted, and any irregularities on the bottom and lower sides must then be removed. It can then be placed on the wheel again, and proceed as already directed.

There are many ways of decorating pottery. Line incision is perhaps the easiest. This is done with a wooden tool shaped like a

finger. The illustrations show a variety of suggestions as to ornamentation, and any of these can be done with the primitive tools mentioned.

When finishing pottery, it can either be left dull and porous or the surface may have a coating of fused matter known as glaze. Whether the pottery is to be dull or glazed, it is best to use the raw colours, which come in the form of powder obtainable at any paint store. These must be mixed with liquid in order to apply them to the clay. Purchase some gum-arabic from the drug store, and mix it with water until it is the consistency of cream. Then add a small amount of dextrine powder, which can also be obtained from the drug store, in order to make it adhesive. Only a few primary colours need be purchased, as these can be mixed dry to get the desired shade.

One way of colouring pottery without the use of the glaze is to apply the colour diluted with gum-arabic, dextrine, and water to the moist surface of the clay. Then put the pottery aside for two or three hours to allow the colour to set. Before the clay is hard, the colour must be worked smooth with the back of the bowl of the spoon. This will

impart a gloss to the surface, which will be unchanged by the firing.

The pottery must not be fired for several days, thus allowing the clay and colour to be perfectly dry.

Another method of colouring much in favour with some craftsmen is to mix the pigment with the body of the clay before it is worked up.

Unglazed pottery may be refined after firing, by rubbing floor-wax on the outer surface, which fills up the pores, and gives a beautiful quality to the surface.

The most successful glazed pottery requires two firings. Powders can be obtained which can be mixed with the colour, which will give the pottery a glazed finish when coloured. Another method is to buy from a potter a soft glaze which can be applied with a camel's-hair brush on the surface of a piece of pottery which has first been fired. The colour must be laid on with a flat side of the brush, going over the whole surface with a smooth, even finish. Allow the first coat to dry, after which apply a second coat in the same manner.

Many potters make a point of never making two pieces alike. If several pieces are to be

made from the same pattern, moulds have to be made. As the making of these is another story, this has not been touched upon, as it is much better for the amateur to make individual pieces and not duplicate them.

If the vessel is intended to hold water, it must have an inside glaze. There are several substances obtainable for this purpose. Red lead can be bought in the form of a powder, and must be dusted upon the moist clay. It will liquefy, and cause the inside to be glazed when fired. Marsching's soft Limoges glaze can be used, if preferred.

There is no craft in which so few tools are necessary as pottery-making. In fact, a set of potter's tools is hardly necessary for the beginner, as such ordinary household things as a nail file, an orange stick for cleaning the nails, an ordinary chisel, and butcher's wooden block, a small steel crochet-hook, resemble so closely the tools made for potters that I would suggest using these for making pottery before a girl goes to the expense of buying the regulation tools. Many potters invent tools for themselves. Those resembling the fingers are the best. A very valuable tool can be made at home by making a loop from a piece of large iron wire, and twisting with a fine

wire. The two ends are held together at the bottom by twists of wire, and the tool is used for scraping off superfluous clay where the thickness of the work in hand has become too great. The loop must be higher on one side than on the other.

In every town there are kindergarten supply stores, and clays suitable for potteries can be obtained from them. This should cost not more than ten cents a pound. Clays come in dry form in grey or yellowish powder. These are prepared for use by mixing them with water. Place in a basin an equal quantity of clay and water, allowing them to soak all night, after which it must be kneaded thoroughly. This must be done until air-bubbles are worked out. If any are allowed to remain in the clay, it would permit the generation of steam in the firing, causing explosion, which would spoil the work. If the clay is too wet, superfluous moisture may be worked out over a dry board, or on a bed of plaster of Paris, half an inch deep, which should be laid in the bottom of a large oiled pie-plate. If the clay is too cohesive, a little fine sand must be added.

In every large town, there are one or

more kilns, and the cost is so small for firing pottery that it is best to send them away to be fired rather than make the attempt at home—at any rate, in the early stages. Most of the Art Schools possess kilns, and they are sometimes willing to do the firing for outsiders, or they will give the address of a reliable firer if requested, when a stamped envelope is enclosed for a reply.

The joy of making pottery can only be realized by those who have worked in clay. Each piece seems to rise and form itself into a marvel of beauty in an almost miraculous manner. I shall never forget my delight when, as a child of eight, I visited an exhibition, and a potter allowed me to make, under his direction, several little vases. For a very small price he promised to have them fired and sent to my address, and my childish heart was much gratified at possessing pottery made by my own little fingers.

CHAPTER VI

WOOD- AND CHIP-CARVING

IT is comparatively easy, with a little practice, to become a good wood-carver. There are few occupations that are more engrossing, and that repay better for the time spent in learning them. It requires, of course, a knowledge of form, and those who have already worked in clay will find this experience helpful when they are learning wood-carving.

It is not necessary for the wood-carver to go to any great expense in buying tools, for very few are needed. Several gouges and chisels, a mallet, and a clamp to hold the work in place on the table or work-bench, are all that are required. The worker must rely upon her skill rather than tools to get good results. It will be found that all kinds of beautiful carving can be done with these few tools. Some teachers recommend the beginner to try first on soft wood, but this

is a bad plan. It is much better to begin by working on the wood that will ultimately be used, thus avoiding having to learn fresh methods when the hand is just beginning to be proficient.

The best and cheapest wood to get is oak. It is tough in texture, and consequently does not splinter when being cut. The grain being of firm consistency, it does not give way in unexpected places, but offers just enough resistance to make each dig of the tool tell.

It is best at first not to attempt designs that are difficult. Take a simple unit, a scroll, or any other easy pattern. If the craftsman understands freehand drawing, she can sketch the design directly on to the panel ; but if she has had no previous training, she will have to resort to tracing the pattern on to the wood, either by means of a carbon or tracing paper. It is not always easy when cutting to see which is the part to cut out, so a practical plan is to shade with a pencil the parts that will be carved out, and then no mistake can be made. The drawing must be gone over with a dark, thick lead pencil.

Having successfully drawn the design, and

after the panel is fastened securely to the table by means of the clamp, the wood is ready to carve. Take a gouge and work round the design, holding the tool in both hands, and making a sort of channel round the outline. Having made this, take the tool and begin to cut. Both hands must be used, one to press, the other for guiding the tool. It will be found that the cutting is easy when following the grain of the wood, but that it is difficult to make the chisel sweep round a curve when the tool goes against the grain. If the wood is too hard to cut in these places by pressure, then the mallet must be used. The chisel must be held firmly to prevent its slipping. It is very important to keep the tools sharp; it is best to keep the sharpest one for cutting against the grain. The best workers use the mallet very little, preferring to push the chisel slowly and carefully, taking care not to remove too much wood at once. Little chips must be made, and at the hard places do not try to work quickly. It is wonderful how soon the hand learns to guide the tools round the curves. Do not attempt to dig to the full depth at once. Go lightly over the ground, and then go over it a second time.

When holding the tool one hand grasps the end, while the other is held firmly round the gouge or chisel, leaving only about an inch of tool visible, and thus preventing it from jumping away.

Do not try to do wood-carving with only the right hand. It is essentially a craft where both hands are needed for the same thing. The worker will soon find it is just as easy to use the mallet with the left hand as with the right.

Having cut the background out so that the design stands out clear and sharp, the worker must then begin to model the raised parts. This is where the skill comes in, for it is the most difficult and, at the same time, fascinating part of wood-carving. The advantage of having modelled in clay is now realized, for it is necessary to feel form in wood just as in clay. Proceed to draw on the design a line to represent the modelled edge, then take a gouge and scoop out the inside curve round each form, until it reaches the pencil line. Make clear, sharp cuts, modelling the edge until it is even and symmetrical. It is not necessary to cut down to the bottom of the background—about half-way is best. A chisel will be needed to level off the outer edge,

care being taken not to chip the modelled edge.

After the beginner has made two or three panels, she will find she can do in half an hour what took her five times as long at first. Do not expect the first attempts to be of much value, except for gaining proficiency in carving. They are sure to be crude, and afterwards, when the work done is really worth while, there will be a feeling of disappointment that any but the best has gone forth. Some workers feel discouraged because their first productions are not things of beauty in themselves. Of course they are not. All true art requires skill, which only comes by practice, and by cultivating the capacity for taking pains.

Good wood-carvers are often found among children. I have seen work of boys and girls of eight years old at the Public School of Industrial Art at Philadelphia, that compares favourably with that of many adults. There is a freedom and spontaneity about the work, which always distinguishes the child trained on Liberty Tadd's methods. This consists in training both hands equally, and in teaching the children to draw, model in clay, and carve. The pupils work in each of these

studies for a short time, changing from one to the other in an afternoon.

Wood-carving can be used for a great variety of purposes. Our illustration of a book-rack shows original and yet easy carving. It makes an extremely simple object for a beginner to start on. This book-rack was made by a young girl in the Art class of the Young Women's Christian Association of New York.

The other illustrations show more ambitious work done by various pupils at the School of Industrial Art at Philadelphia. Not only have they designed the furniture itself, but each piece of carving has been designed and carved by these young students, many of whom have made the furniture as well as carving at the evening classes after a hard day's work.

CHIP-CARVING

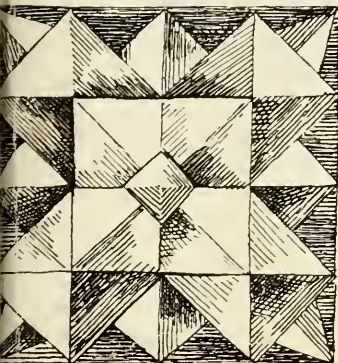
Chip-carving is another form of wood-carving. It is not so complicated, however, as it can be done with a single tool. In chip-carving the patterns are made by chipping little pieces of wood away, and usually this form of carving is confined to geometrical designs. A little practice is required to make

these drawings readily, but when the worker is not clever with her pencil she may buy designs sold for the purpose.

There are several kinds of chip-carving knives sold, but the most practical and one that gives excellent results is the one shown in the illustration. It is held in the hand like a pen, while the forefinger of the left hand is placed upon the heel of the knife to guide it. If the wrist is placed upon the board it acts as a restraint on the knife. Until the hand becomes practised with the tool it is well to make cuts and grooves on waste pieces of wood, choosing designs going to a point. Draw an isosceles triangle on the board, also a right-angled triangle pointing inwards, and practise cutting these, pressing the knife firmly and heavily when sloping the sides of the triangles. The slanting sides may be cut off the triangle pocket at one cut, as this makes cleaner carving than when a little is shaved off at a time. When the cuts meet properly the chips will fly out of place. It is important that the cuts meet properly, otherwise the wood will be spoilt and the knife edge is apt to be dulled. After a number of these triangles have been cut skilfully, the technique of chip-carving will be understood.



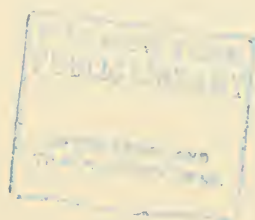
POSITION OF HANDS FOR CHIP-CARVING



MOTIF FOR CHIP-CARVING



OAK BOOK RACK IN WOOD CARVING



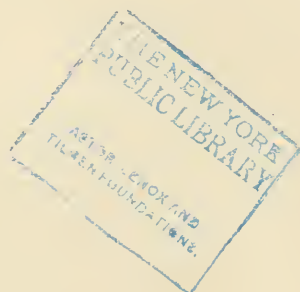
In chip-carving the cutting must be done as neatly as possible, so that the depths of the pockets are all uniform. It is easier to cut in some directions than in others, and naturally it is more difficult to cut across the grain, but with the grain does not make as satisfactory work, as a careless cut goes too far, and sometimes chips off more wood than is desired ; so that, although cutting across the grain is harder, it is the best way for successful chip-carving.

A beginner must be careful in what kind of a design she chooses for her work. Straight cuts are easier than curves, and when she has excelled in straight lines the cutting of curves will not be difficult.

Several woods may be used in chip-carving. Lime is easy to cut, but as it is white in colour it is more easily soiled than the darker woods. Walnut is most highly recommended, but as it is a tough wood it is a little more difficult to handle than the lime. Some workers prefer mahogany, birch, and maple—in fact, any hard wood can be used.

Many people prefer to have some sort of a finish on their woodwork. A soft wax finish looks well. First rub the article with sand-paper, and then apply the beeswax with a cloth.

The beeswax must first be melted, and enough turpentine added to it until it is of the proper consistency to rub on. When it has been on a few minutes, remove it with a hoghair brush.





IVORY LINEN CURTAINS STENCILED WITH GREEN GRAPE MOTIF

CHAPTER VII

STENCIL CRAFT

THE use of the stencil has become a strong factor in the decoration of the home, and when the designs and colour are of exceptional merit it adds a distinctive and harmonious note. A study of the spacing and grouping of the designs will give many suggestions to the beginner in stencil craft.

If dyes are preferred to paint, great care must be taken to follow the instructions given with each package. Only by so doing is there any chance of the colours being permanent. The dyes may be prepared by dissolving a package in a quart of hot water. If a small amount is needed, four ounces of water to as much dye as will lie on a ten-cent piece is a good proportion. The liquid must be strained through cheese-cloth. Add five or six drops of diluted carbolic acid in order to set the colour. Another way of making the dye permanent is to use the white of one

egg with two teaspoonfuls of water, and mix some of this with the dye. Other makers give directions for the use of dextrine or gum tragacanth. This may be obtained in small quantities from any drug store, as little as five cents' worth lasting a long time. A teaspoonful to a breakfastcup of dye is a good proportion to use. Some workers have more success with one dye than with another, but really it is a question of experience and getting good results, and then using the most convenient. However, none of the above-mentioned fixants will suffice in themselves, for they still require heat. When the material is stencilled and dry, it must be ironed on the back with a very hot iron, which must be used over a wet cloth. The hot steam sets the colour more effectively than any fixant mixed with the dye, so that this must never be overlooked. It will usually be found that people who are not successful with dyes are not particular about this most important detail. Some workers run a warm iron over their work, without using a damp cloth, and are then disappointed when after the first launder the stencil has lost much of its pristine beauty ; they forget it is the steam which sets the colour.

When a curtain or stencilled cloth has become soiled, it must be immersed in water to allow the material to thoroughly soak. A handful of salt to a bucket of water will be found a good proportion. This helps to set the colour before it is washed. A good laundress makes her soap-suds and rinses the material in this, rather than rub it in her hands, or on the wash-board.

To apply the colour pour some liquid dye into a saucer, and dip into it a stiff bristle brush sold for painting in oils. Wipe the brush on one side of the saucer and again on a piece of blotting-paper to remove all superfluous colour, and then apply to the stencil. It will be found that the best way to handle the brush is to go over the ties and work from the outer edge to the inside of the open part. By doing this, the colour cannot get under the stencil and run. A little practice soon makes a deft worker, and if these little points are remembered, it may save material being spoiled by the beginner.

When fine materials like swiss, bobinet, or cheese-cloth are used, sheets of blotting-paper must be laid underneath the material to absorb the extra dye, but this is not necessary when canvas, burlap, or other heavy materials are used.

While dyes are nicer to work with than paints, they are not as absolutely permanent in colour as oil paint sold in tubes ; for they will not fade after constant washing. Sash curtains that are exposed to the glare of the sun should be stencilled with oil paint in preference to dye. If the tube paint is not moist enough, a few drops of benzine may be mixed with it, but it is best not to dilute it, if it can be avoided.

There is a wide range of materials for stencilling upon, linen being one that has affinity for following the coarse lines of the material, and it is therefore best to use paint for coarse linens and those containing much dressing. Tussock silks, bobinet, pongee, canvas, and unbleached muslin are all well adapted for stencilling with dyes, and when materials are selected that will not of necessity be constantly laundered, dyes should be used. Russian crash comes in a beautiful soft grey, and forms a neutral background for a stencil decoration. It also has the advantage of being one of the nicest materials to work on with any pigment.

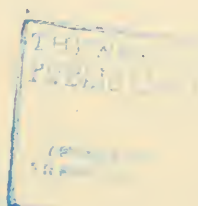
A visit to the kitchen towelling department will disclose many charming weaves of hand-made or machine-made linens, some in cream,



SCRIM CURTAIN WITH GRAPE STENCIL



A STENCIL



coffee, white, or grey colourings. Some are very wide, and are well adapted for various uses in the home.

There is a charming new material known as monk's cloth, which is extremely well suited for portières in country cottages. This is a domestic cloth sold at thirty-five cents; it is like the imported monk's cloth costing \$1.40 a yard. The higher-priced material is 50 inches wide, while the domestic is only 36 inches.

Sailcloth is another material that can be utilized. It usually has a band of red or blue, which can either have a design coloured to tone with the strips, or the strips can be slightly altered in colour to harmonize with the decoration. This material is well adapted for screens, especially in the summer home.

A recent innovation is the introduction of stencilling on evening gowns. Stencilled in delicate colours their effect is most artistic. An attractive dress so decorated was shirred around the waist, and the shirring extended below the hips; the effect of the stencilled material shirred was most unique. The soft blending of colours, and the charm of the soft clinging material, made a dress that was most becoming and universally admired. A large

bouquet of roses added the finishing touches to the toilet.

Any girl with a knowledge of drawing could make an extremely simple design for her evening gown. It could afterwards be traced on to stencil paper. Great attention must be given to making what are called the "ties," as there must be a number of them so as to give strength to the design.

For stencilling on dresses use round, stiff brushes, and apply the colour with firm, even strokes. After filling the brush, it is best to wipe it on a rag or piece of blotting-paper, so as to ensure a neat clean edge. Often very good designs are spoiled through neglect of this precaution.

Evening dresses of light gauzy materials call for delicate tones of applied colour, and most dainty and fairy-like effects can be obtained when the delicate filmy fabric is ornamented. If oil-colour is the medium selected, it is best to lay the colour first on blotting-paper in order to absorb the oil. If really fast dyes can be obtained, they are much easier to work with, and if the stencilling cannot be done at one sitting, the rest of the dye will not have changed colour by being put away over night. The same cannot be

said of oil-colour, as it frequently needs re-mixing after standing a few hours. It is always a tedious process matching colour, especially to an amateur, so that it is best to use dyes for evening dresses.

White Brussels net is one of the daintiest materials for evening gowns. It must be a very fine quality, and must hang in voluminous folds. Worn over a lavender silk slip, with a trailing design of violets scattered in a powdered effect, and yet retaining a border suggestion, the effect would be charming. The design should run above the hem at the bottom of the skirt, and also above the hem of a deep frill around the shoulders, with two frills, one above the other, to form the sleeves ; but, as I said before, fashion will govern how the pattern should be placed. White net used over a green slip and stencilled with blurred, soft pink roses—with a touch of green velvet of a pale shade—would make a most artistic creation.

Messaline is much used for more elaborate evening gowns. It is exquisite in quality, as soft as *crêpe de Chine*, yet more substantial. The surface is peculiarly well adapted for stencil decoration, and many beautiful dresses can be evolved, especially when the artist

bears in mind that the stencilling when finished must be shadowy and translucent in effect, giving a suggestion only of colour and design.

A beautiful dinner gown, worn by a débutante, was made of ivory Liberty satin. The décolletage was outlined by bands of Persian embroidery, done on separate bands; shoulder straps were made of the embroidery too.

The same effect could be given by stencilling, but in this case the design must be conventional and solid, following closely the effect of the embroidery, while the effect of the colour would be strong, and of Persian motif, but the colour must be applied just as sparingly as if a dainty appearance was being aimed at.

These suggestions can be developed by the girl with clever fingers and good taste. Her own ingenuity will suggest many opportunities for adding original embellishments to her wardrobe.

CHAPTER VIII

STENCILLING BY MEANS OF ACIDS

THERE are a great many interesting developments in the line of stencilling that can be evolved by those who are interested in experimenting, and one of the most fascinating of these is the stencilling on dark materials with an acid to produce a pale design. For not only can the pattern be made pale on a dark background, but the colour of the material can be completely changed by means of the acid, and frequently a most exquisite colour - combination is obtained. A description of how acid stencilling is done will serve to show the endless possibilities there are in this interesting form of stencilling.

A beautiful colour scheme consists of a piece of copper linen with the design in the palest shade of lemon yellow. The original colour of the linen on which the stencil was applied was an intensely dark tobacco-brown,

and yet a coffee tone and pale yellow were the final outcome.

Another experience was with a piece of scarlet Cairo lattice-cloth. The result was a design in string-colour on a crushed strawberry background, very soft in colouring, and yet having no artistic colour value.

A dark brown arras-cloth stencilled with acid resulted in a string-colour design with an iridescent copper background. As arras-cloth has a linen thread crossed by jute, the acid has a different effect on the threads, giving a most beautiful iridescent colour scheme.

An interesting experiment was made with green denim. The design came out cream, while the dark green denim was turned into the beautiful shade of blue green of the willow tree.

The most surprising result was obtained with apple-green linen, which changed into pure corn-colour with a white design after it was treated.

An experiment on blue denim showed the design in pure white, while the denim's original colour remained unchanged.

All kinds of material can be subjected to this novel treatment. Some rough Shikii

silk (olive green) assumed coppery tones with a cream design. Accounts of these experiments are enough to show my readers what endless possibilities lie in acid stencilling worthy of further development. Of course, small pieces must be experimented with first if the fabrics chosen are intended to go with certain colour schemes, but if they are made for Arts and Crafts Exhibitions, and only beautiful colour schemes are required, and when no special colour has to be matched, it would not be necessary to do a small piece first.

The process for obtaining these various colour schemes is extremely easy, and are also very inexpensive. The recipe for the mixture is as follows :—

One ounce of tartaric acid.
Forty grains of gum arabic.
One ounce of water.

This quantity may be ordered at the drug store, and will cost about fifteen cents. It will nearly fill a 4-ounce bottle. Begin the work by laying some blotting-paper on the table, and then fasten the material firmly with drawing-pins. Then lay the stencil on the fabric, and apply the liquid with a stencil brush. The mixture looks like water, and

has hardly any colour. Do not have too much acid in the brush, or it will spread under the stencil, and leave an uneven edge.

At first the design will only appear damp, and *nothing apparently happens*. A little faith is required, however, for the acid is doing its work. Hang up the material until the stencilled parts are quite dry.

The next process is most interesting. Make a bath of one pound of chloride of lime to one gallon of water. Chloride of lime can be bought by the pound at the drug store. It is put up in quarter-pound boxes, costing five cents, but possibly it can be bought loose at a cheaper price. Then take the stencilled material and immerse it in this bath. If it is left in only a few moments, the design will appear a pale colour, but the longer it is left in the bath the paler the design will become; the chloride has the effect of bleaching the parts treated with the acid. This is where judgment and experience is required, and where the opportunity for experimenting comes in, as the changes come about while the materials are being immersed. Chloride of lime does not hurt the hands, but, of course, it is advisable to remove rings.

When a pleasing colour has been obtained,

take the material out of the chloride, and give it another bath in soap and water. I find that boiling the fabrics makes the design more distinct. The longer they are boiled, the more distinct the design becomes—in fact, it can be boiled until the design is perfectly white, but this is not always so desirable as the creamy, pearly tones, which are softer. Feasts of colour can be made by this process, but it is well to keep samples of the materials before and after they are treated, so as to be able to get the same colour-combination a second time.

After the materials are perfectly dry, it is necessary to press them with a hot iron on the back. Linen, arras-cloth, Cairo lattice-cloth, all kinds of silk, duck, cheese-cloth, or bunting, can, any of them, be used. A short-pile velveteen can also be treated, as this material can be washed, but it should be shaken afterwards instead of ironed, so as not to flatten the pile.

After the stencilling is done, clean the stencil with a cloth wrung out in cold water. Never roll the stencils, but keep them flat in a portfolio. If any little break occurs, they can be mended on the back with passe-partout tape.

If the stencils are kept clean, they can be used either for acid stencilling or stencilling with colour, but it is evident that any mark of paint left on the stencil would soil the material. Perhaps the best way would be to cut out a duplicate of the design and keep it exclusively for acid stencilling.

Heretofore there has been a limit to the colour of materials to be stencilled, it being impossible to stencil on dark fabrics in an effective way, for stencilled designs of paint and dyes on dark tones give a melancholy result. But with acid stencilling the rich effect of dark materials stencilled proves a valuable addition. The variety of colours in which arras-cloth and denims can be obtained make these materials particularly adaptable. A softer material can be used for book-case curtains, and the advantage of a dark-coloured tablecloth in a furnace-heated house goes without saying.

Another opportunity for using acid stencilling would be on the house gowns known as "jiggers," now so popular with artists. A "jigger" is a garment worn by the Arabians, and many artistic women have adopted the fashion, and wear "jiggers" in the morning before they don their walking



GREEN PORTIÈRE WITH DESIGNS STENCILLED WITH ACID



suits. They are also worn by artists as studio gowns. These garments are usually ornamented in some decorative manner, embroidered or stencilled. But acid stencilling seems particularly adaptable to them, as they are generally made of heavy, dark-coloured materials. The effect of a light pattern on a dark background, at once so unusual and striking, is fascinating. The light pattern somehow seems a conversion of the material itself, as it develops from its rich background. The stenciller must remember that the most artistic draperies are those in which the design is light, but not white. Cream or soft grey tones blend better with most colour schemes than sharp, white ones.

If my readers enjoy making experiments as much as I do—and I often get very good results—I know they will not be content to stop after the first few attempts, but will feel encouraged to develop this beautiful craft into something worth while, and will gradually evolve new and exquisite colour schemes to suit their special requirements.

CHAPTER IX

BLOCK PRINTING

THE beautiful cottons from the East, printed by means of block prints, have a charm and interest which people of taste are quick to appreciate. At one time printing on materials could only be done by means of a block, and this art reached a high degree of excellence in the hands of the Hindoos, whose primitive methods were introduced into Europe in the seventeenth century. Although long since discarded for fabrics, practically the same methods are still used for printing wall-papers by hand, so it is not surprising to find that block printing to-day is one of the latest developments among craft-workers.

Fabrics printed by means of a block print have somewhat the appearance of having been stencilled, but there is a certain difference in the characteristics of the work that appeals to those who understand both methods.

There is a fascination in doing the work that carries away the craft-worker, and she becomes most enthusiastic in praise of the block print. There is a subtle charm about the appearance of the print with its iridescent effect that is most pleasing. Small geometrical designs are used, and it has been found that the most delicate lines and curves can be made by use of the block print.

A separate block is used for each colour, and these are made of fine, close-grained wood. Holly, boxwood, maple, or basewood are any of them suitable woods; some of a child's building blocks can be utilized. They are made of maple, and are just about the right size for the blocks, which should be from an inch to one and a half inches in thickness.

The first process is to plane and sand-paper the block on both sides, when it is ready for the design. Draw the pattern on Japanese tracing-paper, and paste it on the block. Then cut out the background of the design, leaving the figure in relief. Most workers find they can carve successfully with a Sloyd knife or a sharp penknife, while others think they must have half a dozen carving tools to do good work. The natives of the Orient

confine themselves to one tool, and become so skilled in using it that the most delicate lines and curves are made with it. It is found best to hold the block in place by cleats while it is being carved, although a few skilled workers claim that they can do it easier when they hold it in the palm of the left hand.

The blocks of different workers vary considerably in appearance, some having a deep cutting of the wood while others have only a slight depression on the block. When carving, straight lines should be cut vertically directly on the outline of the design. The background is then chipped away. A beginner must be content to work slowly, or she will find that she has broken some of the design away, in consequence of which she will have to provide herself with a new block. When the blocks are ready, take a dozen or so squares of coarse muslin or cheesecloth, and make a pad a little larger than the wood block. The pad can be laid on a plate or piece of glass, or even nailed to a board. Other craft-workers prefer to use felt, and find it sucks up the colour better; it should be glued to a piece of glass or wood.

In choosing a medium, either oil-colour or

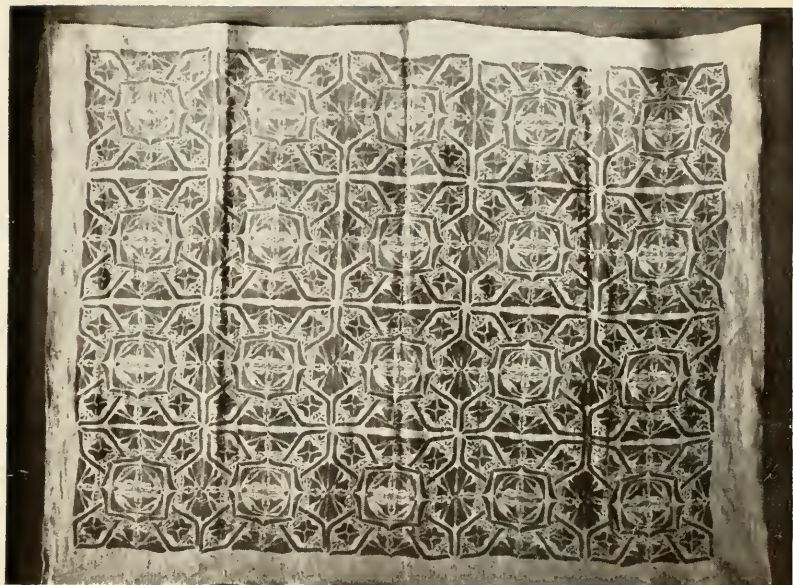
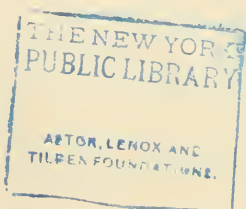


TABLE-CLOTH, BLOCK PRINTED



BLOCKS FOR PRINTING



dyes can be used, but most prefer oil-colour, as there is no trouble about making the colour fast afterwards. The paint is mixed with turpentine until it is the consistency of cream, and then a few drops of mucilage are added to keep the colour from spreading. The pigment is laid over the pad with a paint-brush until the pad has fully absorbed it. In order to know whether there is enough colour on the pad, turn it upside down and let any superfluous colour drop off.

Now take the block in the right hand and press the carved side on the pad. Then wipe off the colour and repeat this process until the pores of the new block are completely filled. Then polish with a cloth, when it will be found ready for printing.

There are any number of delightful materials on which to print. Denim, pongee, cheese-cloth, chiffon, crash, linen, and unbleached muslin are all of them suitable. I should suggest beginning with *unbleached* muslin, as it is inexpensive for experimenting with, and easy to print.

Proceed to tack the material firmly to a drawing-board, taking care that no creases are left, and decide just where the printing is to be placed. It is best to put a row of

pins as a guide for the block, for when it is once laid down on the fabric, it cannot be moved without spoiling it. Having laid the block on the pad, lift it and press it on the fabric, which will leave a fine, even impress. If it is intended to be very dark and clearly defined, it must be hammered *with* a wooden mallet on the back. The harder the blow the darker the print, but the worker must be very careful to get the same depth of colour by each impress. A certain amount of variation will always appear, many workers claiming this is one of the charms of block-printed fabrics.

When once the work is in process, it is remarkable how quickly it can be done,—probably about three times as quickly as stencilling,—and many people find the task of cutting the block takes no longer than cutting a stencil, but the block has the advantage in that it will not wear out.

Thin fabrics require clear colours, somewhat darker than the background, but it will be noticed that there is a kind of grain texture in the printed fabric which is very soft and delicate, having somewhat of an iridescent appearance. When I first experimented in block printing I was very much worried at



BLOCK-PRINTED DRAPERY SEEN AT THE PRATT'S INSTITUTE

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ASTOR, LENOX AND
TILDEN FOUNDATIONS.

this appearance, as I felt the work was not sharp and clear like the stencilling I had been accustomed to do ; but when I studied the block printing of other craft-workers, I realized that this was one of the characteristics of block printing, and is attractive when the work is viewed as a whole.

Block printing can not only be used for ornamenting fabrics, but is very interesting for leather and for ornamenting the inside covers of books.

The illustrations show the kind of designs best suited for block printing. They are especially effective when used as borders on tablecloths, curtains, and bureau scarfs. Portières made of dark material can be printed with pale colours, mixed with white. A very pretty one was made from brown denim, and had a set pattern of just one rose, somewhat square in design, placed quite close together for about 2 feet up the hanging. White may be used on blue with good effect, but one of the most artistic materials for portières is Russian crash. This is only 15 inches wide, but three widths joined by strap hinges of coarse embroidery give a stunning effect to the hanging—the narrow width adding rather than detracting, because

of the hinges. Mummy-cloth is another material well suited for block printing. It is a pinkish tan colour, and has a soft, antique look about it, which its name suggests. It is said to be a copy of the cloth that mummies are wrapped in.

The craft of block printing is quickly learned, and, after the first technicalities are mastered, is very easy to do ; but it requires care in carrying out the details and great nicety in handling the block so as to have a perfect impress.

CHAPTER X

BATIK: AN ANCIENT JAVANESE HANDCRAFT

BATIK-making is one of the oldest arts in the world, having been done by the native Javanese women and children for many generations. For some years past several artists in Holland have tried to follow the Javanese motifs in ornamenting fabrics, but the honour of really developing batik-making into a beautiful craft is due to the energy of a woman. Mrs. Wegerif Granestein has not confined her work to cotton fabrics like the Javanese, but has worked on parchment, leather, silk, and velvet, giving a wide and varied scope to the uses of her work. She has worked in conjunction with well-known architects, and has introduced batik into original decorative schemes that have made her work recognized in Europe. So successful has she been that many orders have come to her, and she now employs thirty craft-

workers in her studio who do this work under her supervision. Beautiful hangings can be seen at most of the Arts and Crafts Exhibitions in Europe. The knowledge of the work has spread to England, and beautiful hangings can now be obtained from private studios in London.

As batik-making has proved a lucrative employment to those who have already taken it up, it is to be hoped that Americans will not be behind in developing batik.

The bold barbaric designs made by the natives of Java have usually been adhered to, but there is no reason why other motifs should not be developed. Mrs. Wegerif Granestein makes many of her designs after L'art Nouveau style, which is still so popular in Europe. In this country it would seem more appropriate to develop it along Indian lines. The crude designs would lend themselves to the technique of this interesting art.

The actual process of batik-making is primitive in the extreme. It is merely the protection of certain parts of the material by the application of hot wax. The material is immersed in dye, which does not colour the parts protected by the wax.

In Java, the batik-makers do not draw the



AN IMPROVED TJANTING FOR BATIK MAKING



HANGING BY MRS. WAGERIF GRANESTEIN



BATIK WORK BAG



design directly on to the material, but apply the wax by means of an instrument called a tjanting on to the cloth. It is not necessary to use a tjanting to get the desired results, as this can be accomplished by means of a stencil, or by using a confectioner's tool for covering cakes with sugar. This enables batik to be made without drawing it first, a plan to be recommended when the worker is an artist, but for a girl who is only capable with her hands the stencil would be more practical. If the confectioner's tool is used, however, the hot wax is put in the reservoir (which is kept refilled from a pan of boiling wax) as it empties itself on to the material.

When the design is covered by the wax, the material is dipped in a dye bath, which must not be above the heat of 60 degrees, or it will melt the wax, and the batik will be spoiled. When several colours are used, repeated applications of wax and several dippings in the dye are required to get the desired results. As this is a somewhat tedious process, batik is usually done in one colour, while the natural colour of the ground is left to form the design.

When a dark design on a light ground is planned, the wax is applied on the back-

ground, and the design formed by dyeing the uncovered parts. It is needless to say that this takes considerably more time than the other. The wax cracks when applied in large masses, and fissures of colour appear through the material, giving the appearance of veined marble, which adds no little to the interesting qualities of the work. It will be noticed that our illustrations have a dark pattern on a light ground—although I have seen quite a number of batiks with a light pattern on a dark ground, they are just as beautiful as those in the accompanying illustrations.

In cutting a stencil for a dark pattern on a light ground it will be necessary to cut out the background out of the design, rather than the design itself.

Batik is particularly beautiful when used for ornamenting leather, and the crinkled sheep-skin that we get on this side is well adapted to this interesting kind of ornamentation.

A study of pieces of batik done by the Javanese is very interesting. These cotton table-covers and hangings are familiar to all of us in East India shops, but when we realize they are done by hand, and in the way I have described, it makes them more interesting.

The name batik has its origin in the native cotton cloth or "battek" worn by the Javanese, a people possessing a knowledge of art and literature before the Mohammedan and European conquests.

The sarong, or skirt worn by both men and women alike, is a strip of cotton 2 yards long and 1 yard deep, which is gathered round the body and twisted at the back. It is patterned in curious designs that have been in use for generations. Geometrical these designs are principally, in which appear the swastika and latticings of Asia. Some are bold and natural, and show the palm leaves and animal forms of Persia and India, showing the art influences that have swept over these adaptive and assimilative people. The cottons are painted by hand by men, women, and children by a curious process. An outline of the design is first made in a rich, deep waxy dye; the parts to be left white are covered with wax, and the cloth is dipped in or painted over with dye. This mordant must be applied for each colour; later, the wax is steamed out in hot water. It is a slow and tedious process, often the work of weeks.

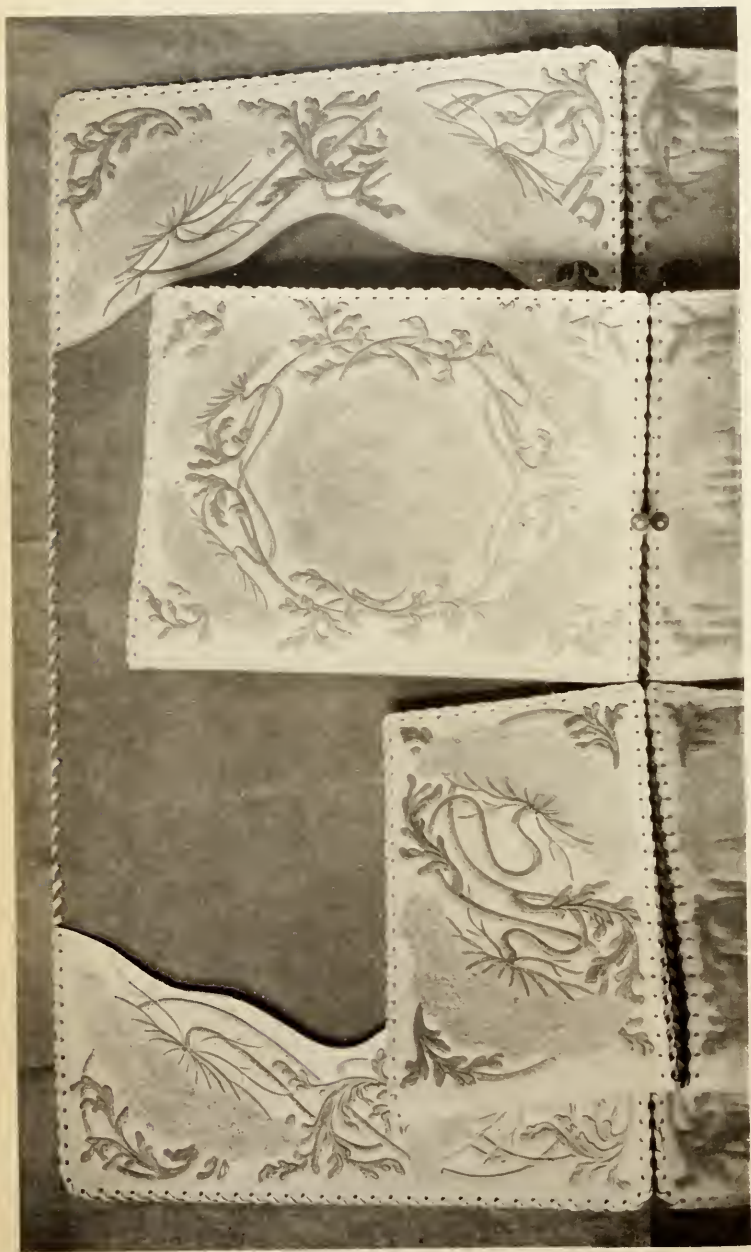
The designs are made by some workers by

means of a tin funnel in which hot dyes have been poured. The funnel has a fine point which enables the artist to do very fine drawing ; the picturesque qualities of the designs make these hand-painted sarongs very marketable. They vary in price from one dollar to thirty dollars each. Not only are they worn by the natives, but a sarong is the deshabelle dress of the Dutch women in Java.

Many of the sarongs are rich in colouring, —dull reds, with deep greens with delicate tracteries and intricate designs.

It would be almost impossible to get the beauty of detail in modern work, as Westerners have not the infinite patience that Orientals possess, and as there is an inherited art born in them ; we can hardly expect to compete with them in quaintness of design and beauty of detail, but it is an inspiration to see their work, and interesting to think of the antiquity of the craft of batik-making.

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LEATHER-WORK DESIGNED AND EXECUTED BY THE MUSSES RIPLEY

CHAPTER XI

LEATHER WORK

THE art of leather work can be learned very easily, as it consists of drawing upon dampened material, so that any girl who can draw will be able to make beautiful and original pieces of leather work, requiring a very small outlay of expense. If the craft-worker has no knowledge of drawing, she will have to resort to a stamped design, which can be traced on to the materials. The most important point to remember is that the right kind of design must be chosen for the particular kind of leather selected.

There are several ways of bringing about the desired results in leather work—it can be manipulated by insizing, carving, staining, tooling, burning, and embossing, which gives a large field for this interesting craft. When making a selection of material, it is not always easy for the beginner to distinguish between good and inferior hides ; we all have to learn

by experience, but there are quite a number to choose from : Russia calf-skin, ooze calf-skin, and split cowhide are all used for modelling. Sheep-skin will not model well, but is suitable for perforating, burning, or inlaying.

It is not necessary to be equipped with a large number of tools, as very few will be needed to begin with. Two modellers must be provided, each with a different shaped tool at the end. A slab of marble, slate, or glass about a foot square, a foot rule, a sponge, a triangle, and a sharp cutting-knife will equip the beginner. The blunt thumb-shaped modellers are used for pressing down the surface of the leather, while the sharp ends of the modellers are used for insizing lines and pointing.

In looking at the illustrations, it will be noticed that most of the pieces selected are in the form of card-cases and blotters.

It would be advisable to begin with a card-case, as this is one of the simplest things to make. After deciding on the size, take a piece of paper and fold it the desired shape, allowing a return to the flap at least three-quarters of the size of the front of the card-case. Then cut the leather out the same size and dampen it upon the back. Then rule the four spaces

required, two for the covers and two for the flaps on the inside of the leather. Then proceed to fold it carefully, creasing it in the middle. Then rule another line in the middle flap. From this line all measuring must be done. Then draw a straight line horizontally, for the top and bottom of the card-case, squaring it carefully with the triangle. Upon the front cover trace a design like any of those in the illustrations, the simpler the better. The card-case can be finished off with a line about half an inch from the edge. The flaps can also be ornamented in this way, when two lines following the shape exactly of the flap will give it a dainty finish. It is best to put a curve or depression on the inner flap so that the cards can be drawn out easily. The lines on the flap and back must first be ruled to secure correct placing, but it is best to go over them with a tool without the guide of a ruler, as it would look too machine-made unless done in this way.

It is important when beginning work of this sort not to attempt much elaboration, or too much detail. Treat the material in a frankly flat and decorative manner, with just enough detail to prevent monotonous spaces.

Many workers in leather evolve for themselves individual methods of working up the background.

In looking at the illustration of a book-rack and blotter, lying on the table, it will be noticed that the background is modelled. This is done with the soft point of the tool. An interesting way of ornamenting a card-case is to place the monogram at the lower right hand corner. The card-case looks more finished if it is lined, and this can be done with silk of the same colour, or soft ooze leather. Paste this on to the hard leather with paste made for the purpose. Fold it on the centre line and press and then unfold, rubbing evenly over the two pieces until the lining is properly attached. Meanwhile, the leather must be allowed to remain damp. When finished and placed under a heavy weight, it will retain the final folded shape, when it will be ready for the sewing. This can be done with an ordinary sewing-machine ; use a medium-size needle threaded with twist or sewing silk. As the stitch must go very near the edge, the top and bottom of the card-case will need cutting with a sharp knife, and only one-eighth of an inch of leather must be left above the stitching.

A magazine cover makes a delightful gift. To make a cover, cut a piece of leather $15\frac{3}{4}$ by $10\frac{3}{4}$ inches, which will allow three-quarters of an inch for the back, and an overlapping margin of half an inch. Then proceed to make the design upon paper the exact size of the cover. When this has been made to the satisfaction of the worker, and after trimming the leather with the square, then find the centre line, and measure three-eighths of an inch from it each way, and rule the lines which will indicate the size of the magazine for which the cover is made. A broad margin is very decorative, as it will be seen on glancing at the upright cover in the illustration. Then trace the design from the paper on to the front of a cover. Then tack it to a board, and go over the design with a blunt tool; indent with the tool, or allow the pattern to stand up in relief by modelling the background in the way that the book-rack is done. Great care is needed in the modelling in order to allow the designs to come up sharp. It might be well for the beginner to keep to indenting until she has perfected herself in this form of ornamentation. Then proceed to line the cover, taking great care not to get any of the paste on to the front

of the leather, or a dark spot will be left. Rub the paste well into the wrong side of the cover, and place the lining, which must be cut a little larger than the modelled piece, and rub the two gently together. Fold the sides and open again as you would a book, keeping the leather stretched at the fold. Then put it under a weight. When it is dry, proceed to cut the lining until it is perfectly even with the outside cover. Then tool a line all round the corner, half an inch from the edge, and on this line begin at the corner and punch holes with a wheel leather-punch (costing 75 cents). Then cut, with a very sharp knife, narrow thongs of calfskin three-sixteenths of an inch wide. This needs considerable practice to prevent the knife from slipping away, and sometimes it is well to buy leather boot-laces, if they can be procured exactly the right shade. Proceed to lace the edges by beginning at the fold of the cover, and bind over and over through the holes all the way round. The thongs can be finished off at the top of the inside by tying the two ends together and leaving one long one hanging. Tie another thong at the lower end of the fold, and knot the ends. These thongs are to keep the magazine in place.



TABLE-CLOTH DESIGNED AND EXECUTED BY MISS H. K. FÖBES



BLOTTERS, CARD CASES AND BOOK RACKS

The bags, cushion, and book-rack in the illustrations are not ornamented by tooling, but by burning. An ordinary pyrography outfit must be purchased, which could also be used for working on wood. The difference between working on wood and leather is that the point of the needle must be kept cool, or it will burn through the leather.

After stretching the leather, fasten it with tacks and moisten it. Either sheep-skin, ooze leather, or undressed calf-skin can be used for the bags, cushion, and book-rack. The alcohol lamp and benzine bottle should only be half-full. Hold the platinum point with the right hand in the alcohol lamp, and press the bulb ; this is the best way to keep a regular heat. A point to be remembered when burning is never to leave the point on one spot, but to keep it moving. Do not pause for consideration without lifting the point, or a hole in the leather will be the result. Definite instructions for burning come with every outfit, and Chapter XII. gives a lengthened description of the actual process of pyrography. The brown colour of the burning is particularly attractive on the soft brown leathers, and is one of the most artistic uses to which pyrography can be put to.

The pine-cone design on the book for post cards is particularly effective. Two of the notebooks illustrated have pretty little designs of Japanese embroidery in blue and gold, pasted on to the covers of ooze leather. A tiny gold card is pasted as a finish round the design, which is further outlined by a few tooled lines.

The addition of embroidery to leather is new and very effective, and such beautiful little bits of embroidery, either Chinese or Japanese, can be picked up from time to time, that it is well to make use of this opportunity for unique decoration.

The illustration of a round piece of leather for a tablecloth shows some very good work, the tulip standing up in relief from the tooled background. It will be noticed that the lines follow somewhat the outline of the table centre, but variety is given by an irregularity in the lines every now and then following the shape of the flower. Interest is given to the leaves by a few lines of tooling.

I have not attempted to deal with the large subject of leather work entirely, but have only mentioned the simplest forms of ornamenting leather which are within the scope of the beginner. As she gains proficiency in this craft she could also take up the fascinating

work of book-binding, with its varied and interesting results.

It is not the technique or the process that makes the work successful, but creative ability and individuality of treatment that tells in the long-run.

Another reason that makes this craft so fascinating is that many styles of leather work give a large scope for the worker. Cordovan leather, curved or embossed leather, appliqué and mosaic leather, gilding and bronzing, and pyrography, are only some of the many kinds that are being done to-day.

Even the tools vary, as many craftsmen design their own tools and dies. One worker will use a number of expensive tools, while another will get good results from using only a paper-knife, a dull-pointed nail, a penknife, and a simple stamp cut out of a piece of wood. As the worker gains proficiency she can buy more tools. The following list is recommended by one who has had many years of experience :—

A *tracer* or dot-wheel to prick out the patterns.

The *spade point* for tracing and moulding. Often a bone paper-knife is used for this purpose.

The *awl tracer* for tracing lines in cut leather work.

Stamps for corrugating the ground. These are made of iron or steel, and resemble large headed nails, a cross, or an O ; but here the ingenuity of the designer comes in, each worker finding new forms and motifs, which they design and have made to order by a die-cutter.

A *mallet* is used for matting or corrugating a large surface of background. A slab of marble, glass, or wood will be needed on which to do the work.

A *fine-bladed pointed knife* is also a necessity.

Thin sheet leather is the easiest for a beginner to manipulate. Russet kid or calfskin can be used for many purposes, and is the kind skilled workers like best to carve.

The leather is first laid on a marble slab or stone, and then softened by wetting with water ; if the leather is thin it will only need lightly sponging, as previously described. If it is very stiff and hard, it will need soaking for several hours. A stamp must be tried on the leather. If the imprint disappears, the leather is too wet or too soft. If the leather becomes too dry while being tooled, it must

be lightly sponged. The thickness and hardness of the leather determine the amount of wetting required. A most important point to remember is to run the lines clearly and deeply with the wheel tracer or awl point. A strong outline is also essential to good work. A knife may be used for outlining, thereby making bold firm cuts, which adds much to the character of the work. The modelling tools are used on the background, and the individuality of the worker can be expressed in the choice and manipulation of these tools.

It would seem that this is the craft of all others for the explorer, as no two workers get the same results. It is best to learn the technicalities, and proceed to work out the processes for oneself. A study of old Cordovan leathers would stimulate the imagination, and a few hours spent with a good craft-worker would tend to make a more creative craftsman than courses of lessons where generalities are in order.

CHAPTER XII

PYROGRAPHY

PYROGRAPHY, or “Burnt Work” as it is often called, signifies etching or writing with fire. It is a method of burning designs on wood, leather, paper, ivory, etc. This decorative art can be one of the most beautiful, but alas ! such terrible transgressions have flooded the market, that what should be a decorative art has become debased by its associations. The chief point to be remembered in attempting pyrography is that the drawing must be excellent, and the objects chosen for this method of decorating must be suitable to receive this treatment. Pyrography is often done to resemble painting or relief work. Great variety in toning can be given, from the deepest black to the palest shades of brown, by pressing lightly or heavily on the point of the instrument. When the design has been drawn it is remarkable how rapidly the burning itself can be done, and

what an unlimited number of varying lines and curves can be given, some delicate hair-lines, others with steady heavy stroke, according to the effect to be produced.

Outfits for pyrography can be purchased at varying prices, some as low as \$2.50 a box. The \$5.00 set is adaptable to very excellent work.

The outfit consists of a platinum point, burnishers, an alcohol lamp, a bottle of benzine, a bulb and hand-bellows combined, rubber-tubing, and a wood holder for the platinum point. A more expensive set contains, in addition to the pieces mentioned, a glass filler for pouring the benzine from one bottle to another. It also contains two points, one round and the other flat. These are twice as large as those in the less expensive sets.

Some people use gas for heating the point, but benzine is preferable. A small quantity should be bought at one time and kept in a dark place. Pour a little of the benzine into one of the bottles, and in the other place a wad of loose cotton batting. Pour the benzine into the bottle containing the cotton until the latter is thoroughly saturated. An extra cork with an extra top with two branches will be found in the box. Screw

it on to the bottle containing the cotton, and slip the rubber-tubing on the right arm with the bulbs attached, allowing the rubber-tubing to come over the left arm. The platinum point must then be fixed securely in the holder and joined on to the tubing on the left arm. The worker must have at hand some pieces of cotton rags, a few scraps of wood or leather, and a box of matches.

When all is ready, the lamp may be lighted and the pyrography apparatus taken into the hands as described. Hold the platinum point in the upper part of the flame, and then pinch the bulb gently and firmly between the thumb and fingers. The point will assume a golden tint, which will gradually increase to red. As the heat is retained a long time, the lamp may be extinguished and relighted when required.

The worker must get into a comfortable and easy position, and hold the cautery as if it were a pen. Sometimes the platinum point will not light readily. This will be because there is too little benzine in the bottle, or that the puff is not strong enough to send the right amount of gas to the point. A new point takes longer to heat than an older one. Before beginning to work on the article to be thus decorated, practise burning on little

bits of leather. Draw in pencil designs of leaves and trees, and outline them with burning. Then make straight short lines, then waves and curves, practising until confidence is gained and something of the technique of the craft is understood. For the outline work the round point must be used, while the flat point is employed for the heavier markings.

It is obvious that anything heated red-hot will burn whatever it touches, so the worker must be very particular not to lay down the heated point so that it will come in contact with the table. It can be laid on the table so that it projects well over the edge, or it may be placed upon a pen-rest.

The worker must not be discouraged if at first the lines are uneven and spotted. These faults arise from two causes, one is that the point ceases to be hot, because the work of the right hand is so engrossing that the worker forgets to use the bulb with the left hand. When this is noticed, too much vigorous pumping is resorted to, which overheats the point and causes a fierce blow-up. Another cause of unevenness is the too great pressure of the point when wood is the material being used. This causes the grain of the wood to interfere with the lines,

especially those woods that are soft and hard according to the grain of the wood. The point must merely touch the wood and there must be no pressure at all. A good deal of practice is necessary to overcome these difficulties. There is a great difference in workers. Some make their platinum point last indefinitely, while others are in trouble all the time. The platinum point is a delicate instrument, consisting of a shell of platinum, which is merely the cover for the internal arrangement. If too much pressure is used, this thin shell will wear out much more rapidly than it should.

It is better not to hold the point to the extreme tip in the flame when heating it, but to allow it to project beyond the flame a little. I know of no craft that needs more care and patience than pyrography. Patience must be cultivated for a successful achievement in this art, for if the girl is in too much of a hurry she is liable to burst the air bulb. If it is stiff under the hand it must never be forced—there is some good reason why the passage of air is stopped. Possibly the cylinder may not be quite in its place, or one of the rubber-tubes may be twisted, or a piece of wood may have lodged on top of the tube by accident.



HALL MIRROR IN PYROGRAPHY AND STAIN



SETTLE DESIGNED AND EXECUTED BY MISS H. K. FOBES

THE NEW YORK
PUBLIC LIBRARY

ACTON, LENOX AND
TILDEN FOUNDATIONS

Any of these trifling obstructions are liable to hinder progress. If, however, the bulb bursts it is not irreparable ; it can be patched.

There are quite a variety of materials upon which pyrography treatment looks well. Undressed leather, unfinished calf, and ooze are especially well adapted to this kind of decoration. In working on leather, great care must be taken not to allow the point to remain on the material, or it will burn through at once. It is also necessary that a cool point be used. Pretty little articles, such as pen-wipers, clipping envelopes, card-cases, bags, tobacco pouches, and photograph frames are all of them recommended for the beginner. There are all kinds of interesting line designs for borders. A little practice is necessary to plan these so that they will come out evenly. This result is best obtained by working from both ends alternately and thus reaching the centre evenly. In working on leather, stretch it well and fasten it with thumb tacks to the drawing-board. It must then be moistened with a sponge.

There are several unvarnished woods that are well adapted for pyrography. Bass, lime, maple, sandal-wood, birch, or in fact any white wood that does not contain too much

resin, are suitable. I need hardly say that much of the white wood sold for burning on is sawn and sand-papered by machinery, which causes circular scratches to appear on the surface of the wood. It is most important not to select a piece with such blemishes. Any wood used for pyrography must be so carefully sand-papered that not a dent or a scratch is left on the surface, therefore a good deal of labour is saved by buying a piece that is perfect in the first instance. A slightly soiled piece of wood, however, is of no consequence. Sizes No. 1, $\frac{1}{2}$, and 0 are the best to get for sand-papering the wood. The best method of doing this is to get a good-sized lump of cork, and cut from it a small block the size of a safety match-box. Wrap a piece of coarser sand-paper around the block, and rub the wood up and down in the direction of the grain, but never in the opposite direction or in a circular manner. When the wood is perfectly smooth, go over it with the finer sand-paper. It is well to take the precaution of examining it under a strong light—not a single scratch must remain if the work is to be perfect. It is well for the beginner to choose very small articles, such as trays and frames, before attempting

the larger pieces, such as book-cases and large brackets.

If the worker is not able to make her own designs, patterns can be purchased from time to time at the various artists' supplies places that carry a full line of everything pertaining to the craft.

Ivory is another material suitable for pyrography. If unpolished ivory can be obtained, better results can be had than with the polished article, as the polish frets the point and must be removed with a damp cloth. However, as it is not easy to purchase ready-made articles without the polish, this difficulty has to be overcome. All kinds of toilet articles, brushes, mirrors, powder-boxes, shoe-horns, etc., can be brought into service. A pretty addition to the backs of brushes are the monograms of the owner.

It will be found when experimenting upon ivory, that the same technique is required as when burning upon leather, and both of these are easier to work upon than wood, although beginners usually experiment upon the most difficult—of course this is not wise.

It is not generally known that paper and cardboard can be ornamented in this manner, but when the worker has become an expert,

dainty and beautiful results can be obtained on both cardboard and paper. It is easier to manipulate pyrography with a new point on these materials than with one that has been used on the soft surface of leather or the polished surface of ivory. Little particles will cling to the point while the work is in progress, and require constant removal. Slight pressure only must be made, so that a brown line, not a black one, is indicated on the delicate surface. Cardboard of any colour is suitable, but that which has a rough surface is more decorative in its appearance and therefore better than the glazed surface. Water-colour and crayon papers are also adaptable, and from these many attractive little objects can be made, such as pen-wipers, shaving-cases, photograph frames, and other little fancy articles. In paper work delicate and sketchy designs should be selected, a touch here and there, lettering—in fact, anything suggestive rather than full of detail—is most suitable for this perishable background. Great care is required, as while working there is the liability of the paper igniting and vanishing into smoke ; and I need hardly add that, owing to the inflammable quality of the benzine, caution is essential. Never have



CHEST DESIGNED AND EXECUTED BY MISS H. K. FOBES



the bottle containing the benzine more than half-full, and keep it well corked. The work should not be done in a room with an open fire or near a light. There is no danger if such precaution is taken. Carelessness in handling the benzine may, however, result in serious accident.

A great many people prefer pyrography when it has the addition of colour—this is a matter of taste, however. Stains are sold especially adapted for this work, but many people prefer to use either oil or water-colour paints. However, the stains or water-colour paints are the best colour mediums, as they can be applied as thin washes. When the article is completed it must have a “finish” to protect it. Beeswax slowly melted in turpentine and put on with a cloth gives a soft effect. It must be gently rubbed with a cloth until a smooth surface results. If a shiny surface is desired, a pyrography lacquer can be obtained, which must be applied with a varnish brush. When dry rub it down with a rubbing powder, and apply another coat of lacquer. Care must be taken not to rub too hard or the colour underneath will be injured. A mixture of shellac and alcohol can be used in place of the lacquer, and

afterwards the article can be sand-papered. A great many workers like the simple method of applying linseed oil. This also requires sand-papering and rubbing quickly and lightly with a rag.

I must caution my readers upon restraint in going into this craft. It would be in extremely bad taste to decorate in a wholesale manner all the small articles in the home. The beginner usually wants to decorate everything within sight, from the rolling-pin to reproducing in pyrography the heads of her friends. Only an artist may attempt portraiture in pyrography. A classical design let into the panels of a mantelpiece or into the back of an overmantel is well adapted to this work, but three-legged stools, bread-trenchers, and sofa pillows seem singularly inappropriate for pyrography.

CHAPTER XIII

MARINE MOSAICS—DECORATIVE WINDOW TREATMENT

A NEW and original scheme of decoration has aroused much interest within the last few years. It is known by the name of "Marine Mosaics," and consists of a clever adaptation of shells, stones, and glass, strongly cemented, to form beautiful effects in colour and unique features in design. It is novel in showing a development in the penetration of light through objects so arranged as to illuminate in a pictorial manner the harvest of the sea. The transcendent beauties of nature cannot be equalled by artificial products; but the mediums for the construction of marine mosaics are all from nature's storehouse, the fields, the beach, and the sea.

After many years of experience, skill in utilizing these products has been assured by W. Cole Brigham, in his studio at Shelter Island, New York. For several

years he has been experimenting until he has attained a degree of perfection which places the making of his mosaics among the fine arts.

At first glance it is difficult to understand how these beautiful effects in marine mosaics are brought about. The mosaic is composed of semi-transparent shells and pebbles, combined with rough or smooth glass, all of which are held together with cement, laid upon a background of clear plate glass. The cement gives the same effect as lead lines in stained-glass windows.

Much skill is required in gaining good colour schemes, as were these put together without regard to their subsequent effect when lighted they would be garish, but done in the way in which the inventor does them they are pictures in true colour. These results are brought about by a careful drawing and blending of accents, reproducing the sparkle and life of the sea in a unique and effective manner. The high relief of the shells, and the density and dark colour of the pebbles, together with the brilliant mosaics of glass, suggest action in a forcible and impressive manner.

Hitherto the gathering of shells has been

confined to children or scientists, but now that the beautiful craft of marine mosaics has come to the fore, a new purpose will be given to the summer vacation spent at the shore, and delightful experiments can be made in the home.

Although a mosaic made in this way closely resembles stained glass, the mechanical process is entirely different, and the result shows the sparkle and light so dear to the heart of the impressionist. The fact that cement is used in the place of lead makes a secure application for the small and irregularly shaped pieces of which the mosaic is composed. The foundation of plate or hammered glass should be three-eighths of an inch thick. Under this the design is placed, and then the shells, pebbles, and pieces of glass are laid on the glass, which covers the pattern. They are held in place by a narrow line of cement, which is put on with the brush. The cement must be coloured to be in harmony with the rest of the mosaic. Green is generally the colour chosen. The mosaics must be placed on the glass, and each piece lifted for an instant while the narrow line of cement is drawn for the purpose of holding each piece in place. These lines in coloured cement give the same effect as the lead lines in a

stained-glass window, and the designs must be made so that these lines are an integral part of the whole.

There must be no smearing of cement behind the shells, and everything must be neat and taut. The line of cement which holds the shells in place is not more than an eighth of an inch in width. The design must first be made on paper, and each shell and pebble must be examined individually and very carefully, in order to determine its colour value, before it is placed on the glass. The cartoon can be placed underneath the glass, so that the worker can easily see the design, and fasten the mosaics in the proper location. The cement used should never be white, but stained, to combine with the general colour effect. Pale green is perhaps the best shade to use, as it combines well with practically any colour.

When the design is worked out with pebbles and shells, and the stems formed by small, irregularly shaped pieces of broken glass, any spaces left open may be filled with odd bits of broken glass. It would be well to make a colour cartoon suggesting the effect of the marble mosaics, and this will be a guide when the work is in progress.

The worker must display considerable skill in order to obtain good atmospheric effects. These are secured by the use of irregular bits of material. Pebbles in all sizes and density are available for the purpose, gaining perspective when they are of the same quality of colour. A cartoon in colour to suggest the mosaic when finished would be a great help in bringing about the desired result. It is essential in the making of artistic mosaics that good colour schemes be chosen, and the colours must be chosen with the ultimate view of their effect when lighted, as well as for their general pictorial effect. The density and colour of the dark shells, the high relief of the pebbles, and the brilliant particles of glass mosaics must be harmonized successfully in order to produce a finished and beautiful work of art.

Designs in fruit effects are usually formed by the adroit use of pebbles. The purple hues, so prominent in them, are particularly effective in forming a bunch of Tokay grapes, the tones blending in colour from the deepest purple to the most delicate pink. The stalks and stems are formed of bits of glass, each arranged in a manner suited to the varying width of the stems. Floral effects in these

mosaics are obtained chiefly by the use of shells of the palest hues—crabs, scallops, spliny oysters, jungle scallops, and mussel shells, being so well adapted, owing to their exquisitely delicate colourings, for the formation of the petals of flowers. Any flower almost can be thus cleverly reproduced in shell forms—their odd shapes and different colours making them peculiarly adapted for this purpose. When the light filters gently through the colours are beautiful and varied, and one feels unconsciously, through this interesting artificial method of imitating nature, the purity suggested by the presence of the natural flowers.

Seascapes and landscapes, for window decorations, give the artist of these marine pictures opportunities to display brilliant effects. The rising sun is depicted by a bright spot of colour, and its reflections are simulated by bits of stone and glass. The trunks of trees are represented by razor shells, and their foliage may be rendered by the use of differently shaded glass particles.

Any girl clever with her fingers can accomplish wonderful results in utilizing marine mosaics. Not only may they be used for windows, bathroom and staircase windows

particularly, but they make beautiful moving screens. Perhaps the fire-screen is one of the most effective displays for the use of these sea beauties, for when the picture displayed is viewed with the firelight in the background, the brilliancy and effectiveness of the colours is marvellous, the rich hues of purple and Pompeian red—the bold effects of the high lights—are most striking. Lamp shades and candle shades may be made to form the same effects, and from these mosaics all sorts of interesting and unique features have been evolved to secure original methods in screening lights. Electricity especially gives a wide field for this work, and the beauty of the colourings formed must really be seen in order to be appreciated. Hanging lanterns for dark corners suggest a decorative note that is invaluable for artistic homes. These may be cylindrical, hexagonal, square, or like those used by sailors. They are usually painted black or green, thus throwing into relief the glass panels. Cabinet doors, yacht port-lights, and all kinds of transparencies are only some of the many uses to which these interesting productions can be put.

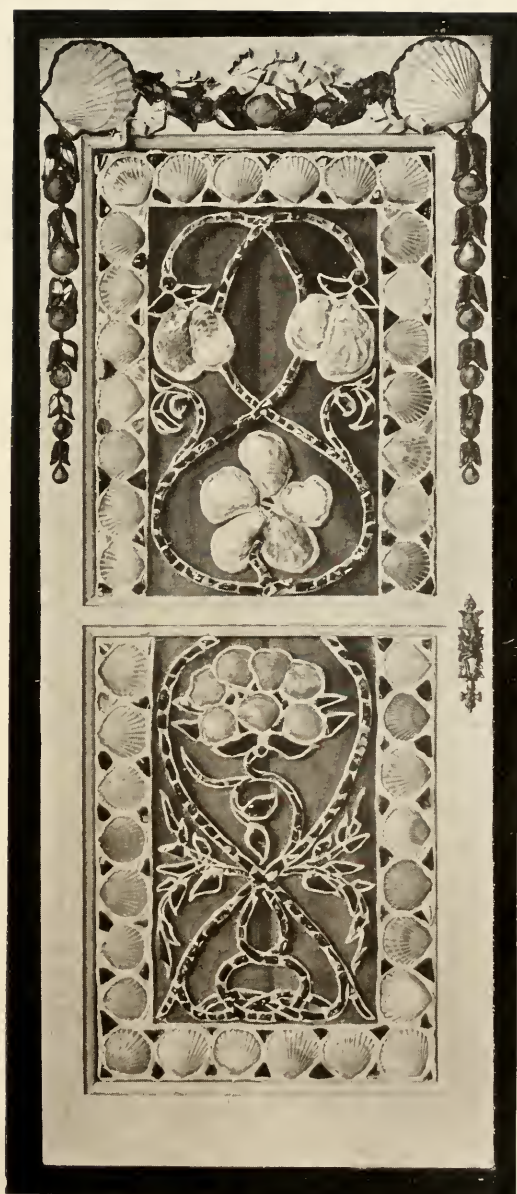
Years ago shells were used for windows. This new art is an advanced development in

the study of the transparency of objects, placed in such a manner as to illustrate pictorially the beauties of nature. This interesting scheme of decoration can be developed along original lines, which will suggest themselves to the worker, and the results will amply repay the time spent in working out the plans and making experiments.

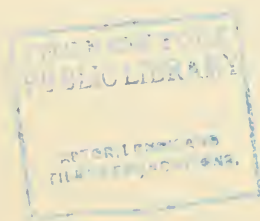
The success that attends the making of marine mosaics is brought about by variations in colour and the depth of each tone. The deep red of the spliny oyster, when distributed among colours of varying degrees of depth, is superb, and the delicate effects, as shown in lily petals, may be secured by using mother-of-pearl to represent the pure white petals.

It is so hard to find occupations that are not beyond the ability of the daughter of the house, but I am sure my readers will be unusually pleased if they try this new and interesting work, requiring not only the knowledge of colour and design, but skill in manipulating pieces into a beautiful mosaic.

The illustrations of some of Mr. Cole Brigham's work show several ways of using marine mosaics. The double-light window is composed of scallop and mussel shells, the



WINDOW OF MARINE MOSAICS DESIGNED AND
EXECUTED BY MR. W. COLE BRIGHAM



stems consisting of bits of glass, divided by heavy cement lines. Those who are clever in making jewellery can add shells to form the wings of beetles and butterflies, but as this requires a knowledge both of jewellery-making and jewellery-setting, the girl craft-worker may prefer to buy some inexpensive jewellery, and replace the sham jewels with beautiful shells. The illustration of the flower-holders show the introduction of pebbles as well as shells.

The making of marine mosaics is a most interesting craft, and, when colour harmonies are understood, repays the time spent in evolving beautiful colour schemes. I would not suggest that amateur workers attempt to mount the lights, but vendors of lamps would mount the shades, and a glazier would set the lights in the window-frames. A good cement for holding the shells in place on the glass may be made from gelatine, plaster of Paris, and white lead. The paste must be made thick enough to hold the shells in place, but must not contain too much plaster to render it heavy. When of the proper consistency a dry powder paint may be added, after first being ground free of lumps with a palette knife.

DECORATIVE WINDOW TREATMENT

A clever idea for decorative effects in windows closely resembles the most beautiful stained glass, and yet its slight cost brings it within the reach of all those who have the skill to make beautiful designs, for it consists only of Japanese tracing upon which decorative sketches have been painted in water-colour.

The tracing-paper is stretched on a drawing-board exactly in the same way as water-colour paper, and then the sketch is made the size of the window-pane for which it is intended. In looking at the illustrations, it will be noticed how good and bold all the designs are, but a reproduction gives no idea of the brilliancy of colour of these exquisite window lights. The Japanese tracing-paper lends itself to this treatment, for it allows the light to come through, and yet, owing to its opaque qualities, it is excellent for screening purposes for the lower part of a hall or bathroom window, or for the lower lights of a dining-room which overlooks a neighbour's house. The fact of the light not being obscured makes them available for back windows, especially for studios where the outlook on roofs and chimneys is anything but pleasing.



A CLEVER SUGGESTION FOR A DECORATED WINDOW TREATMENT



MR. W. COLE BRIGHAM SOMETIMES MAKES JEWELRY IN MARINE MOSAICS



The introduction of lettering carries out the suggestion of stained glass, and yet they must not be regarded at all in the light of a sham, for they do not pretend to be anything but what they are.

When the sketch is completed and perfectly dry, it can be pasted on to the window by means of mucilage and water. The best way to do this is to mix equal parts of water and mucilage, and to smear the window-pane all over with it. Then place the paper on the window-pane, pressing the middle first with a soft cloth, and working toward the edges so as to get no creases or bubbles. Great care must be taken not to tear the tracing-paper, but a little practice soon makes perfect, and I would certainly advise pasting several sheets of undecorated tracing-paper on the window before running any risk of spoiling the decorated tracing-paper. One of our illustrations shows nine different designs placed in the lower part of a large studio window. The rich orange of the pumpkins, the bright yellow of the marigolds, and the purple of the grapes were a feast of colour that riveted my attention as soon as I entered the room. The illustrations were made by students at the Pratt Institute,

Brooklyn, an art school where one is always sure to find original work, beautiful in design and praiseworthy for its colour value.

One of the charms of a decoration of this kind is that if we find ourselves amidst ugly surroundings, with a depressing outlook, beauty of form and glowing colours can be introduced on the windows by means of these effective paintings, to cheer our spirits and give an individual touch to the room.

For a new church, where the costly leaded glass cannot at first be afforded, this form of decoration would be an admirable substitute, particularly if the artist members of the congregation were willing to make the sketches gratuitously, for they would make a fine substitute while waiting for the more permanent leaded windows. Interesting as these windows are, not only to design and make, but to see and enjoy, it should not be forgotten that they have a very certain informal character. They are hardly to be looked upon as permanent and lasting, but rather as casual decorations that have merit, and which may be changed from time to time as one desires. In any event, they constitute a new form of household decoration that possesses both novelty and interest.



AN UGLY VIEW CAN BE OBSCURED BY APPLYING SKETCHES
IN COLOUR



FLOWER VASES OF MARINE MOSAICS

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ASTOR, LENOX AND
TILDEN FOUNDATION

CHAPTER XIV

HOME-MADE FURNITURE

GOOD substantial furniture that will last a lifetime and will stand any amount of knocking about is not easy to find, unless a price is paid too expensive for the majority.

There are so many simple and appropriate patterns sold by the magazines for making furniture, that it is well worth while for the amateur to consider whether she cannot save a considerable sum by making such things as chairs, book-cases, and screens herself—that is, if she is willing to put honest workmanship into the making.

The making of a hall chair or settee is not beyond the skill of a girl who enjoys carpentry, and it would not be necessary for her to saw the flat pieces out of the wood, as it can be done better and at a nominal cost at a saw-mill. The patterns must be drawn on the lumber, so that the lines can be followed easily by the saw.

The chairs illustrated show good simple construction, but with the necessary strength to withstand the racking at the joints. Solid pieces take the place of rungs held in place by glue. The back is of one piece, the seat is a distinct piece, and a third forms the front part, thus making a chair consisting of three portions of lumber. This method of chair-making is called the loose key construction. Chairs made in this way can be knocked apart in a few minutes, and can be put together in almost as short a space of time. The tenons need not be too tightly wedged if they are soon to be pulled apart—the chairs illustrated have been made without glue or nails, and only a few screws have been used.

Many craft-workers think that only quartered oak should be used for making this straight-line furniture. The chairs, however, are made of plain, sawed white oak, which if properly selected has a beauty surpassing the quartered. The boards forming the legs are held together by a rail passing through a large mortise in each, and held in place by a key pushed through the projecting tenon. The legs extend by two tenons, dove-tail-shaped, into corresponding mortises cut in the seat, and the legs are sprung apart at the

top by this dovetailed mortise, by which both keys are tightened.

The question of economical spacing is often a serious problem when the living-room is small, and a good deal of thought is often required in planning for books. The ordinary book-case takes up a large amount of wall space, and it is often more practical to fit some shelves into the corners or recesses, especially when they can be combined with another piece of furniture.

Sometimes when a house has been built it is possible for the amateur to make some of the fitments from the architect's plans. One of the illustrations shows a clever arrangement of divan and book-case combined. While the house was being built the owner made this interesting piece of furniture from the plans of the architect. The trims and doorways of the living-room being of cypress, the same wood was, of course, used for the combined settee and book-case. A good water-colour was framed as the centre-piece. The shelves, supported by interesting brackets, or straight uprights, hold a good many books. Further room was provided by the addition of a magazine-stand built at one end. A clever arrangement at one side of it concealed the

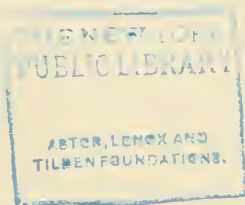
heating apparatus extending to the bedroom above. The door of a hinged closet was later made into a clock-face, and a clock was placed behind it; a quotation from Chaucer in slightly sunken lettering gave an additional note of interest to this piece of furniture: "As for me though that I konne but layte on bokes for to rede I me delyte."

The woodwork is stained a greenish brown, and seems to melt into the green-stained walls. Every inch of space is utilized, as doors, opening downwards, conceal a supply of winter's cord-wood underneath the bench. Red denim was used to cover the mattresses, and figured denim of the same colour formed the covering for the three large pillows. Green and red were introduced in the smaller pillows, which are covered with cretonne.

A very pretty corner seat can be made when the window comes near the corner, and the doorway is in the centre of the other wall. A seat can be run to the corner and return again to the longer wall to the doorway, and must be finished off at the side with a winged end. Two loose cushions will form a seat, and a piece of the same material with which they are covered can be carried up against the wall to a height of 2 or 3 feet, over



DIVAN AND BOOKCASE MADE BY MR. H. W. HETZEL



a padded back made of unbleached muslin and moss. This can be capped with two shelves for books, and makes a convenient and decorative corner seat and a book-case combined. Care must be taken when placing the bookshelves that they are at the right height, so that when arising from the seat the head is not knocked against the bookshelves. Naturally they are narrow, so that this can easily be avoided.

Irregularity in bookshelves adds very much to their artistic appearance. Shelving can be run from a corner of the room to a window to the height of about 7 feet. Below the window two or three shelves can be run, and the bookshelves finished at the far side of the window. This breaks up the wall pleasingly and economizes space.

A window-sill effect can be given when the window is high enough by simply arranging shelving on the line below the window, but the space should be at least wide enough to allow for three rows of books, or it will look meaningless.

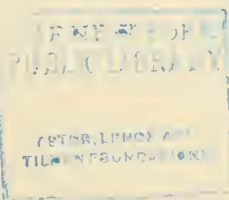
Sometimes we are confronted by the fact that there is actually no wall space left for books when all the furniture is in the room, but this difficulty can be overcome by placing

a couple of long shelves above the furniture. This is very pretty when placed high above a divan or sofa, when two groups of bookshelves, each consisting of two shelves, are placed on different walls in the room. This gives accommodation for a large number of books. The bottom shelf can be supported by wooden brackets, which must be of a really artistic shape in order to look well. A paper pattern should be cut out and sent to the saw-mill so that the bracket is made the exact shape and size required. The top shelf is better supported by iron brackets, as these are so flat they do not interfere with the books, and although ugly they are hidden by the books.

A sideboard, which in its better days had been a mahogany bureau, was made by a skilful girl. The three lower drawers were removed, the top drawer being left for the spoons and forks. The doors were made by this same clever girl with tools out of lumber. They were stained mahogany colour. Glass was inserted in the door spaces, and strips of wood to hold the glass in shape were nailed behind the doors. The hinges for the doors, draw-handles, wood, and the glass were bought for less than a dollar, certainly a trifling cost.



THE SCREEN WITH OAK FRAME IS ORNAMENTED BY PANELS OF PIERCED COPPER OVER GLASS. PAINTED SCREENS
IN LOW TONES ARE VERY DECORATIVE



A few pieces of silver were attractively arranged on the top of the sideboard, while the lower part was made attractive by pieces of china. An unusual piece of woodwork finished off the top of this interesting piece of furniture, and served as an effective background to set off the china. The skeleton of the old mahogany bureau was utilized by converting it into a practical book-case, the front of one of the drawers forming the base.

Within the last few years amateurs have succeeded in making screens not only for their own homes but have sent them to the various Arts and Crafts Exhibitions, where they bring good prices because of their intrinsic merit.

The wooden screen illustrated is not only very decorative, but shows extremely original treatment. The frame and panels are of oak, filled with brown filler and finished with wax. The frieze consists of favrile glass and copper. The glass is in beautiful shades of yellow and brown, and over this is laid a silhouette of copper. The glass represents the sky and water, and the colours are so selected that the tones of the sky seem reflected in the water.

This effective method of ornamenting a screen is not very difficult for the amateur to attempt. If the craft-worker is skilful in the

use of tools and can make the screen, expense can be spared ; but if not, the panels can be made by the craft-worker and the screen made by a carpenter.

Sheets of copper can be bought in several sizes, but it would be well to use 26-gauge, as this is thin enough to cut readily with shears. Draw a simple landscape design, one that has large portions of sea and water, so that the glass forms at least half of the picture. Then take a piece of copper, which must be cut larger than the panel necessitates, and nail it firmly to an old table or bread-board. Then trace the design on the panel by means of carbon paper. As this would rub off when the work was in process, it is best to go over the design at once with pen and ink. The parts of the design representing the fields and trees must be hammered, with short even strokes, with a metal respoussé hammer, making only slight indentations. When this is done, take the sheet of copper from the board and cut out the horizon line with sharp shears. The delicate parts and the spaces between the trees must be cut with a fret saw.

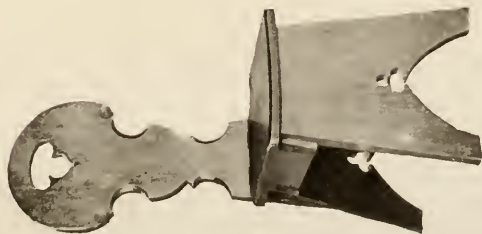
Bore a hole in the sky-line or water-line with a No. 40 hand drill, and then take a



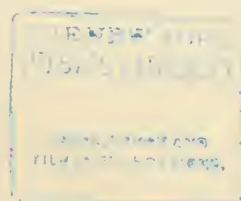
CHAIR OF GOOD SIMPLE
CONSTRUCTION



LEATHER SCREEN MADE BY AMATEUR



CHAIR OF GOOD SIMPLE
CONSTRUCTION



sheet-metal worker's saw, or an ordinary scroll saw, to cut out the design. Insert the saw, the end being pushed through the metal, and fasten it to the other end. Now hold the metal on the table with the left hand and do the sawing with the right, turning the metal from time to time as the direction of the line changes. The blade of the saw must be held in a vertical position. A little bees-wax on it will make it move easily through the metal. When all the spaces have been sawn out, the edges of each opening may require a little filling. The background may be darkened by rubbing paint or sulphate of ammonia on to the copper; some prefer to colour it by putting it in the oven and letting it bake very slowly. The slight toning of the copper makes the design more effective. The screen in the illustration is the natural colour, with the exception of a few darkened places, which tend to increase the effectiveness, but if the beginner is timid in attempting too many things at once, the colouring can easily be omitted.

When the perforated and hammered panel is in place the effect is most beautiful, especially when seen with the firelight or sunlight glinting through.

There are many excellent designs for hinges, some of which are very simple, while others are quite complicated. The copper hinges in the screen illustrated are first cut out with shears. The design is traced in the same way as that for the panels, and the rounded edge of the outline is hammered over the edge of the board. A 40-penny nail must be used to make the indentation of the background, which will throw the design in relief. The narrow raised edges show some clever tooling, which may be beyond the scope of the beginner, but the design would be almost as effective made with a nail for the background and the centre with a hammer. This would give the difference in texture, although the raised line would not appear.

The illustration of the leather screen shows some well-tooled leather in russet browns. Copper nails are used to give it a finish, but this beautiful screen is just a monotone in brown. The oak frame is finished with wax, and is rather lighter in shade than the panels. A frieze treatment of trees adds interest to the work.

The panels are first thoroughly wet, and then the design is traced in small portions with a blunt knitting-needle or pencil. It is

not necessary to use a carbon. The design must be indented on the leather. When the tracing is removed, it will be sufficiently clear to incise it with one of the sharp modellers. They may be bought for twenty-five cents a-piece. Two modellers are all that are needed for all kinds of leather work. Each modeller has a tool at either end. The sharpest of these may be used for cutting the ivy leaves and veining them. Afterward the design is tinted with either oil paint or colours for burnt woodwork. Russian calf-skin or split cowhide would either of them be suitable for such a screen.

Great care is required in attaching the panels to the under-frame of the screen. If the craft-worker is not prepared to do the work as carefully as it should be done, it would be better to have this done by an upholsterer.

CHAPTER XV

HAND-WOVEN RUGS

THE art of weaving is one of the most interesting and fascinating pursuits, and it is easily learned by those who are willing to master the technique of the loom, and to pay attention to the numerous details that make for good weaving. Not only can beautiful and economical rugs be made for the home, but a thorough knowledge of the craft fits a girl to impart to others what she has learned.

In charitable work weaving has been an immense benefit, giving employment to those who need it, not only in the weaving but in the preparation of the material, which requires only unskilled labour, and can readily be done by women incapable of understanding weaving itself.

It is now a number of years since the revival of hand-weaving in America. At first there was so little written on the

subject, that, in order to understand it thoroughly, experiments had to be made not only in weaving, but in the kind of material to use, and in the dyeing of the fabrics.

The chief difference between the original Colonial rug and those made to-day is that the Colonial ones were made from worn-out clothing, which was torn into strips, sewed, and wound into balls, resulting in a motley chain of materials and colours which were woven "hit or miss" into rag carpeting. Those more fastidious as to colour, collected the roots and barks of trees from which to make vegetable dyes, and evolved the most beautiful colours. After being dyed the rags appeared in charming, rich colours, which in many cases have retained their brilliancy after years of service. These home-dyed rugs of the "hit or miss" variety fitted in with the simple surroundings of Colonial days, but the requirements of to-day are more stringent, and rugs must be made of new materials, or of remnants, which when dyed possess the same qualities as new materials.

Rugs can be made from many kinds of materials, such as lawns, cretonnes, denims, sateens, ginghams, ducks, cotton flannels,

ticking, rope, roving yarns, and canton flannels. Unbleached muslin offers a field of great variety, as it can be dyed the exact colours required. The question of cost is not determined by the price of material per yard, as sometimes light material at six cents a yard will make a more costly rug than a heavy material at fifteen cents. If light material is used, it must be torn into wider strips, as it weaves into such a small space ; it is more economical to buy a bulky material that can be cut into narrow strips.

Labour is another important item to consider in the making of rugs. It has been proved that to buy short remnants is extravagant, as the time spent in sewing the pieces together, and the delay in tearing and cutting them afterwards into strips, owing to the seams, is more costly than paying for material that is better adapted for the purpose. Remnants that have become marked, or have been discarded on account of imperfect weaving, and are known as seconds, are the best kind to buy, as they can often be found in pieces of 10 and 15 yards in length. After experimenting in various widths of materials, it has been found

that three-quarters of an inch is the most suitable for all purposes.

If a rough fuzzy rug is required, the material must be torn, as the rough edge can only be obtained in this way. Denims are peculiarly attractive after they are woven, because of this soft, fluffy edge, which shows on the surface of the rug when completed. Unbleached muslin has the same quality. If a very neat rug is required, new material must be purchased, and after removing the piece of wood upon which it is wound, it can be tightly bound and fastened securely with tape. It can then be placed upon a table, and a heavy meat saw with a weight at the end can be used to cut it into slices, so that in a few minutes a bolt of 50 yards is ready to be wound. To ensure the strips being perfectly even, the table should be marked in inches, as it is essential to good workmanship that each strip should be exactly the same width. Most people cut with scissors when they require a smooth finished rug, but this is an appalling waste of time, and if the work is given out costs six cents a pound to have it done by some old woman who makes her living by cutting materials for rag-carpet weavers. The small outlay

required in purchasing a good knife will pay for itself in the saving of time in the first few rugs. The strips being 50 yards long, no sewing is necessary, and this also saves time and makes the weaving neater.

In tearing materials long lengths should be used ; a whole bolt of material can be quickly torn with a little care in starting the work right. Take a tape measure and cut the cloth for a couple of inches. It is not necessary to cut off the selvage, unless it is a different colour, as it folds into the weaving and is not noticed. Having started the material right, it can readily be torn. It is very important to take great care that the strips are started exactly the same width. If only one person is to do the tearing, fasten the end of the cloth to a screw-eye fastened to a table or window and then start tearing.

The material must be wound into balls as it is being torn, or it will get into knots and become tangled. It is important to do this work quickly, as if it lies around the material frays too much, and the part that comes off is, of course, only waste. When buying denim it is important to try a piece first to see if it tears well. There is one make of denim which cannot be torn,

and, when cut, a thread works up which completely spoils the effect of the rug.

Experience alone teaches us how much material will be required for weaving rugs, and it is best, therefore, to weigh every piece of material that is bought, and write down the number of yards contained in the piece. When it is woven, the rug can be weighed and the exact amount used in the rug ascertained in weight and the number of yards. About $2\frac{1}{2}$ lb., or from 5 to 7 square yards of material, will be required to make 1 yard of weaving. If, however, the strips are cut the least little bit wider than three-quarters of an inch, three or four yards could be wasted in a 3×6 rug without improving the appearance of it.

It is not always possible to obtain materials that will hold their colour, but there is a great difference in the quality of the dyes used in the materials obtainable. Indigo blues and turkey reds can be bought in two qualities. Those with "oil dyed" printed on the label will be found to be very much better than the ordinary dyed ones. In selecting materials from which to make a variegated rug, cretonnes, percales, and prints

can be utilized ; the beauty of these depends not on the design but on the massing of colours. Sometimes a large red cabbage rose and very strong green leaves—an altogether garish piece of material—in the end will weave into a most beautiful rug, the large spots of red giving a pleasing variety. A very small design will naturally weave up into—broken surface. The denims, although not considered fast colours, do not fade in patches, so that a rug made of this material only softens in tone with use, but, of course, it is advisable when plain materials are used to dye them with absolutely fast dye. Nothing gives better results than the home-made vegetable dyes. It will be found cheaper to get unbleached materials for dyeing than pure white, as the white has been bleached, thereby deteriorating the fabric and not improving it for dyeing. I should, therefore, advise unbleached muslin, and a coarse, cheap khaki from which soldiers' uniforms are made. This is much cheaper than denim, and is often heavier, and will dye any of the dark colours. Whenever khaki colour can be used, it would not be necessary to re-dye it, as it is one of the best materials to be obtained for

rug-making, and is more or less fast in colour.

The best warp to buy is that known in the trade as four-ply H, and a white warp is the most useful for all purposes, as nearly all the warps that come ready-dyed fade, and it is extremely difficult for an amateur to keep warps in good condition if she dyes them herself. If the warps once get mixed nothing can be done with them. The ready-dyed tobacco-brown warp holds its colour fairly well, and the bright red also holds its colour, but it is so rarely that one can ever use a red warp that it is practically ruled out for utilitarian purposes. The new ecru colour found in the commercial warps holds its colour remarkably well, and being of a neutral shade does not spoil the colour value of the woven piece. A blue rug remains blue with this warp over it, so that it is advisable for weavers to confine themselves to either white or ecru.

Many people advise the home-dyeing of warps, but, after a great deal of experimenting in this direction, the majority have concluded that it is impracticable except in the case of blue, where the quantity of dye is so large that one can have an even colour in dyeing a

large quantity. The four-ply H or three-ply warp is not heavy enough to give the rug a very light appearance, as it sinks into the cloth, and the rug possesses the colour value of the weft rather than the warp.

When choosing a loom there is a wide range to choose from. They can be purchased for as much as seventy-five dollars if the modern steel ones are preferred, but as the old wooden looms make just as good a rug, this expense seems unnecessary. Many an old loom can be picked up in a country junkshop or at country fairs, and often an advertisement in a city paper will bring the weaver in touch with possessors of looms who are willing to sell them for any price ranging from five dollars to twenty-five. In buying an old loom, it is important to know of what it should consist, as, if an odd piece is missing, it might be quite expensive to have it made.

A loom consists of a frame, a beam, two heddles, a lay, a reed, and a shuttle. A wheel for winding the material usually goes with it.

The beaming of a warp is a rather difficult process, and wherever possible should be done by a beamer. When ordering warp, the

number of ends must be given. Every weaver has a different idea on this subject. Some have only 200 warp threads to the yard, but the most serviceable and the best number to use are 225.

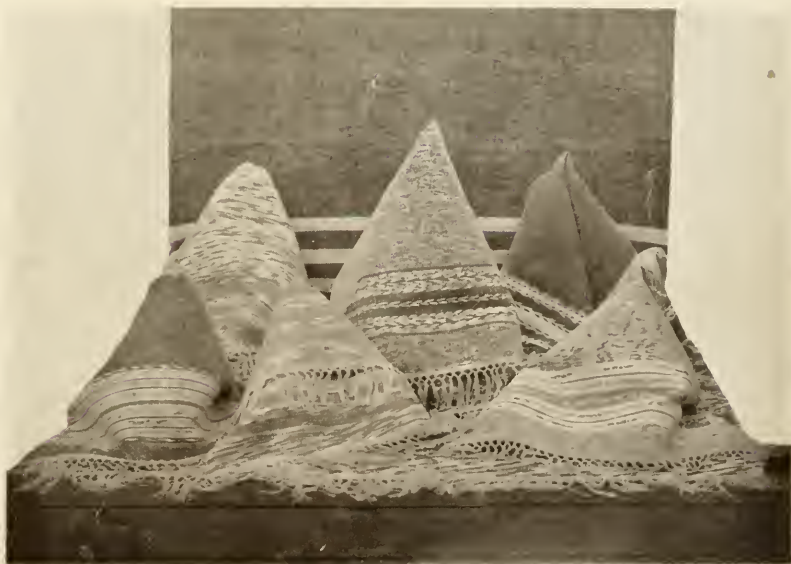
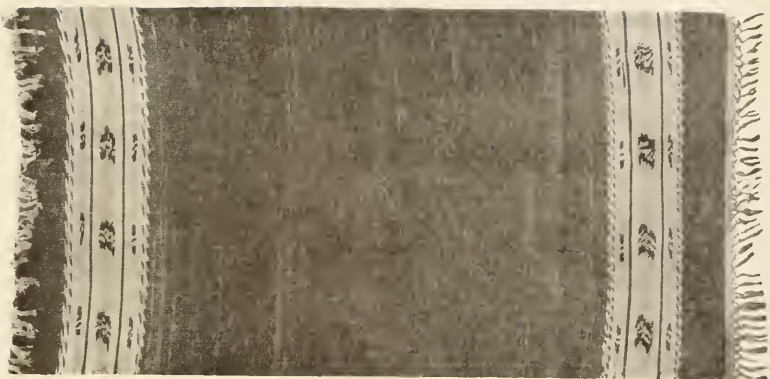
After the beam is placed in the loom, the warp threads are thrown from the beam over the back cross-bars, and threaded through the heddles, then through the reed and over the front cross-bar of the loom, where it is attached to an iron bar and rolled under the front cross-bar. The heddles are arranged in two frames which are on two different horizontal planes, when the shuttle is thrown through the warp.

Having divided the material into strips and wound it on to the balls, it must then be wound off the balls on to the iron rod, which is placed on to a wheel, and a small quantity is wound, which, after having the iron bar removed, is ready for the shuttle. After pulling the end of the material through the hole in the shuttle, it is now ready for weaving. A seat must be placed in front of the loom at the right height for the weaver to have a good command over the work.

When beginning to weave, the left treadle

must be pushed down with the feet, which will cause a gap between the two layers of warp. Take the shuttle in the right hand and throw it between the warps, holding with the left hand that part of the loom which contains the reed. This is called the lay. Leave a couple of inches sticking out at the side of the rug ; this must be turned back and lapped around the warp at the selvedge. After the shot has been thrown, pull the lay forward and press the right foot down, releasing the left, which will make a reverse gap between the two lays or warp. The shuttle is now placed in the left hand and thrown from left to right between the warps, after which the lay is pulled forward as before. This simple process is repeated over and over again, until the shuttle is empty. When the new shuttleful is added, do not sew the two strips together, but cut each end into a tapered point and overlap them. This join will then be invisible, which cannot be said of work that has been sewed together.

The first four or five inches of a rug is always the same as the centre. Plain bands of contrasting colour can be used about a couple of inches wide. An uneven number looks better than an even. A 3×5 rug could



A GROUP OF MARTHA WASHINGTON AND PRISCILLA HAND-WOVEN RUGS

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AETOF, LENOX AND
TILDEN FOUNDATIONS.

have three stripes for borders, while a 3×7 would need five. The rug is finished off at each end with a half-inch heading of warp, which keeps it from fraying. In starting the rug this must be done before the material is woven, and when the rug is completed it is finished off with the warp. It is not usual to take a rug out of the loom until the set in hand are completed ; sometimes as many as fifty rugs can be on the roll underneath. About 12 inches of warp must be left between each rug.

It is a little hard at first to weave from only hearing a description ; however, a beginner will comprehend it more readily after watching a weaver. Half an hour spent under the guidance of some one who knows is worth a great deal, and is the best means of simplifying weaving.

While the plain bands of colour are very pleasing for borders, there are several ways of introducing attractive variations. Twists or crows' feet are done by twisting tightly two contrasting colours together. These are wound on to a ball as if they were one piece, and shots of this are run across the centre of a border, or used to outline it. The crows'-feet effect consists of two rows of twists

thrown in alternate directions. Twist from left to right. Take another strip, and twist from right to left. This will make crows' feet only if done in this way. Otherwise it is a twist. Crows' feet in a border is run once across ; then a plain shot and then a crow's foot returned. Striped material cut horizontally can be used in rug-making, and give a blurred effect that makes one of the most attractive kind of borders.

In portière-making a different sort of border is advisable. The darkest colour should be at the bottom of the portière, and extend from 8 to 12 inches. A series of narrow bands, either 1, 3, or 5 inches, can then be added. The upper part needs no border. Another way of making patterns is to run in a few lines of white with a bodkin after the rug is finished. The one disadvantage of this method is that the weaving will not be the same on both sides.

Sometimes a white line thrown "hit or miss" through the rug is pleasing in a dark blue one ; for instance, weave a white strip 5 inches long, and on the next pick to it add another line 3 inches long, and repeat these touches at intervals throughout the rug. It will be found that the effect will

be good. If it is too regular, it loses all its charm.

There are several designs in Indian rugs which suggest motifs from what is called "inlay work." Indian arrows, diamonds, and squares can be utilized.

Nothing improves a rug more than knotting, and like everything else there is a right and a wrong way to do this. Make a knot with a group of warp threads, and tie it close to the heading. These should be about 1 inch apart, and should extend right across the rug. A second row is formed by taking half of the knotted warp string, and tying it to half of the next tassel. When the second row is completed, half is diagonal; a third row is an improvement, but is not necessary.

The work of experimenting is fascinating, not only in designing borders, but in evolving good colour schemes. It is a great help to make a little sketch of the rug in water-colour before weaving in the loom. A small table loom would be invaluable for experimenting for border work, as it would use so little material in width, as they are so narrow, and the strips of a series of borders could be kept at home as a guide for future rug-designing.

Another variety of rug-making is caused by grouping the warps three or four together by threading two or three threads through one heddle, but this work is too much to do for one or two rugs, so that it is best done only where a number can be done at the same time. It is always advisable to group the warps separately for portière-making, as the work should be more loosely woven and the warps further apart. It is not necessary to change the warps on the beam—only to thread them in groups through the heddles. One lay-out of warps consists of two threads in every other heddle hole, instead of one warp thread in each hole.

DYEING

This is another department in successful rug-making, but a most important one, and the fascination of the dye-pot beguiles many women in country districts into evolving all sorts of beautiful colour schemes, not obtainable in any other way. Some rugs are poorly made, but their colour qualities are so apparent that they are readily bought up at the various Arts and Crafts Exhibitions where they are sent.

The chief difficulty in vegetable dyeing is that those who do it jealously guard their secrets and will not give them away to others who want to become experts in this line. It is also an advantage to use spring water, as this has some peculiar merit known only to experts. The fastness of some of the Scotch and English dyed materials depends largely upon the qualities of the water in certain parts of Great Britain. A country woman who has a spring in her garden and who is able to dye her materials with the most permanent dyes, finds that the same process used with the water from the spigot cannot be depended upon in the same way.

The following formulæ are used by many women in Canada and New England, and many of them are handed down from mother to daughter.

INDIGO DYE.

Blue is the most universally used of all colours for dyeing materials for rug-making, as all shades of blue from sky blue to a deep blue-black can be dyed in the indigo tub. This dye has the merit of being cheap as well as fast. It can also be used with yellow or

orange, or with copperas or walnut. A good recipe for indigo blue consists of—

1 lb. of finely powdered indigo.

$2\frac{1}{2}$ to 3 lb. of green copperas (clean crystal).

$3\frac{1}{2}$ to 4 lb. of newly slaked lime.

Rub or grind to a very fine powder the indigo with a little water or an alkaline lye. It must then be mixed with hot water, after which the lime can be added, when it must be well stirred. Continue to mix it when all the ingredients are added, and continue this at intervals for twenty-four hours. When ready to dye the material, ladle out what is needed into the dye vat. When it has been used several times, it will need to be refreshed with a little more copperas and fresh slaked lime, always remembering to stir the sediments well from the bottom.

The indigo dye powder is a manufactured article, prepared from the plant which produces it, and can be bought when the plant cannot be obtained for dyeing. A very great quantity is required, as 250 lb. will be needed to produce a single pound of the prepared indigo. Some people believe that if they themselves cannot get the plant they are not getting the real indigo,

but this is a mistake. This dye is especially recommended for cotton.

Another recipe which is preferable for wool, but can also be used for cotton, is made from—

12 lb. of fine indigo powder.

9 lb. of bran.

8 lb. of madder.

24 lb. of potash.

Water at 125° Fahrenheit.

Mix the indigo powder, madder, and bran and water well. The potash is not added until later. At the end of thirty-six hours 14 lb. of potash, and twelve hours later the remaining 10 lb., are added. When fermentation and reduction of indigo are well developed, which will take about seventy-two hours, add the fresh slaked lime. When properly prepared, a vat of this dye can be used for several months, adding as needed any of the constituents required.

Another blue dye recommended is made from berries and logwood.

RED DYE

The dyeing of red with madder is a very complicated process. The recipes usually

given for it are so involved that very few amateurs will trouble to go through all the laborious processes of mordanting and oiling the material to be dyed. The ordinary turkey red and cardinal red are extremely good dyes; the turkey red especially is a fast dye. If red colour is required, I should suggest buying the material called "turkey red" termed "oil dyed." It could be deepened in tone by madder or brown when it is found that the red is too bright for ordinary use.

RUST COLOUR

This is, of course, a very easy dye to make, as it is obtained by allowing old iron to be left standing in water. It is absolutely permanent, and dyes the material a beautiful yellow.

YELLOW DYE

1 lb. of fustic will dye 5 lb. of wool material. Alum, tartar, and spirits of tin make the fustic yellow, light, or bright. Acetate and sulphate of iron and common salts darken it. The material dyed with this dye can be used when yellow is required, but

by dipping it in the indigo vat a very permanent shade of green is given to it. Another good yellow can be obtained from dyeing with smart-weed.

WALNUT

This is made from walnut or butternut stain by steeping the bark of the tree or the shell of the nut in the water, until the water is dark with colour. Various shades of yellow, brown, dark brown, and green brown can be obtained, according to the strength of the decoction. If the nut or bark is used when green, yellow brown will be the result. It is also valuable in assisting to make blue green. The material is first dipped in the walnut stain, and then immersed in the indigo dye. It is also a very useful stain in setting the colour of other dyed materials. A beautiful red can be obtained from poke-berry, but its fastness of colour is obtained by dipping it in the walnut stain.

YELLOW BROWN

This can be made from boiling logwood chips in water, and the depth of colour is determined by the amount of logwood used.

COPPERAS

Copperas can be bought at any country store, and gives a fast nankeen-coloured dye. A beautiful pale green can be made by dipping the nankeen-coloured material into the indigo tub.

In dyeing with vegetable dyes, it will be found that natural stains and dyes can be made from numerous roots, barks, and bog plants. One reason why it is so hard to get recipes of these dyes is because the women who find them out for themselves choose to have a "dog-in-the-manger" attitude toward others working in the same direction. How much better would it be if co-operation in exchanging recipes and experiments could be arranged. It seems so contemptible to be selfish about helping others in the same direction.

Many people find the making of vegetable dyes extremely troublesome, and very much prefer to buy the best article from some one else. Until lately this seemed almost an impossibility, but to-day there are some craft-workers who are willing to share their experience with others. Mrs. Helen Albee, of Pequaket, N.H., has made a number of

dyes for the different material for her pulled or Abnakée rugs. These dyes she is willing to sell to other craft-workers for twenty cents an ounce. They are not strictly vegetable dyes, but she has proved their permanent value by years of experience. Miss Charlotte Pendleton, of Laurel, Md., is, I think, the only craft-worker who is really making a business of manufacturing dyes. No amount of sunshine or washing changes the colours; they are most beautiful. They are so concentrated that only a small quantity is needed for a dye bath.

CHAPTER XVI

FANCY PATTERN WEAVING

FANCY weaving of all kinds has lately become very popular. The rapidity with which beautiful pieces can be woven make it a fascinating occupation. Those who have taken up weaving seriously have bought Swedish looms which possess a great many heddles, allowing weaving to be made in them of pictorial nature. These weavings illustrate the fairy tales and folk-lore of Sweden, and are exceedingly quaint and attractive. They are much used for nursery friezes. They are made of linen thread with a pattern worked in many colours in vegetable-dyed linen.

As these looms are large, they take up a good deal of room, and consequently it is more convenient to use an attic or spare room of some kind, as there is not only the placing of the loom to consider, but room must also be found for the frame for loom - spools, winding-wheels, etc.



A SMALL LOOM IN WHICH MANY FANCY PATTERNS CAN BE WOVEN

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ASTOR, LENOX AND
TILDEN FOUNDATIONS.

The art of fancy weaving is taught in many parts of the country by Swedish teachers, some of whom reside in New York, Chicago, Boston, and other cities. These women are engaged by the various art schools to teach the different kinds of weaving, so that practically any kind of fancy weaving can be learned. Many girls only wish to understand the principles of weaving, and to be able to make for themselves pretty sideboard cloths, curtains, borders, or dress trimmings, and for this purpose a small table loom can be used. It is built on the same lines as a rag-carpet loom, but instead of being worked by treddles and the weft thrown between the warps with the shuttle, a long needle made like a netting-needle is used in place of the ordinary shuttle, while the pattern itself is woven by means of a darning-needle. Many beautiful designs can be done in these looms, and it is interesting to see perhaps half a dozen darning-needles threaded with different colours lying on top of the woven pieces of material. The only drawback to using a loom of this kind is that only narrow pieces can be woven, such as sideboard cloths, chair-backs, and dress trimmings.

The warp threads are usually of ivory linen,

and the shuttle needle is filled with the same kind of linen thread. Mercerized cotton or linen can be used for the design in as many colours as the design calls for. Usually the student prefers to work out her own designs, but if she is not clever enough to do this she can copy needlework designs, or buy cross-stitch patterns, which can be obtained in any needlework store. These patterns are well adapted for weaving—in fact, many pieces of weaving are mistaken for cross-stitch. Of course the weaving takes very little time compared to working in cross-stitch, and all kinds of individual methods can be resorted to in evolving interesting designs.

In looking at the design of the running dogs, it will be noticed that the dogs on the top line have a somewhat raised appearance. When worked in with a darning-needle the threads can be left loose, which will give this effect, though this is not so serviceable as it is effective, as, of course, it is apt to get untidy after years of wear, and a hand-made piece of linen is a possession that will not easily wear out, and should be a thing of beauty as long as it exists.

The design showing five groups of straight

linen is the easiest kind of design for a beginner to start on. These can be made by simply darning the dark part, taking up every other thread, and using the shuttle for all the raised part of the work. If the table loom is considered too narrow for towels, it could be used for making borders ; for such a purpose the design should be run horizontally up the loom, when the ivory linen parts between the dark would be put in with a needle threaded with the same coloured thread as the shuttle needle. The worker will be surprised how many yards she is able to do in a day. Of course the work on this kind of loom does not compare with the beautiful pattern weaving that can be done in a large loom, but as this form of weaving is difficult and somewhat involved, it is advisable to take lessons from a good Swedish weaver, who can not only supply the looms, but the linen threads, which they import from Sweden. These linens are absolutely fast in colour, and never fade even after years of constant washing. As these fabrics are always woven for household purposes, this is a most important point to remember. There is no greater addition to a bride's trousseau than a quantity of house

linen woven by the girl herself in the beautiful rich colouring in which these linens can be obtained.

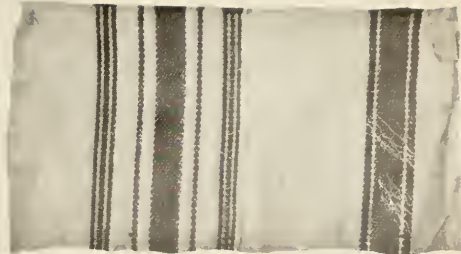
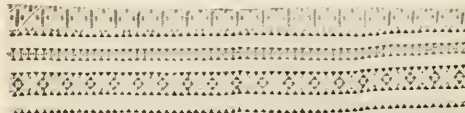
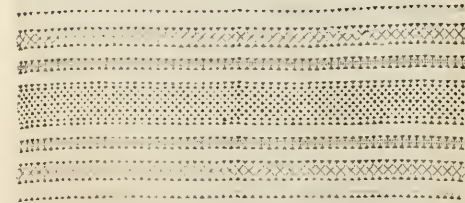
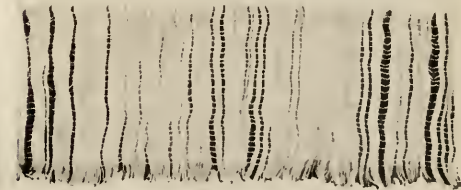
Swedish weavers usually make their own designs, but if a girl is not able to design herself she can be supplied with her teacher's designs, or she can show her how to make use of what is on the market. Many old samplers done by hand are being brought from oblivion, many of which make beautiful designs for weaving.

Having decided to take up intricate pattern weaving, it will be found very interesting to read what has been done in the past, and it will be found that the early Egyptians and Phœnicians were working in very much the same way as the Swedish weavers of to-day, and the coverlet weavers of New England and the Southern States of America.

Museums in all parts of the world contain specimens of beautiful old weavings, from which the weaver can draw inspiration.

There is a wide field for any girl who wants to strike out an individual line for herself. Having learnt to become an expert weaver through a Swede, I would suggest that, instead of using Swedish designs, and

Till god vän går genvägar, vore han än fjärran faren.





only contributing to the world a repetition of what is now being done so beautifully by them, that the worker plan out her own designs of distinctive character, either following the mediæval or the ancient, or working up original designs of her own. A study of books of design, and numerous visits to museums, will well repay those who contemplate taking up this interesting craft in earnest.

A few directions as to how a small table loom can be worked should be helpful to those who wish to experiment before going farther into weaving. A supply of linen warp having been obtained, it must first be beamed. A frame supplied with a double row of spools called a spool-holder must be obtained ; also a frame called a warping bar, which consists of two upright bars of wood, each holding a number of wooden pegs or nails set at right angles to the bars, and held together by cross-pieces. Some twenty or thirty spools must be placed in the spool-holder one above the other. The free ends of threads from the spools are gathered in the hand, and fastened to a peg at the top of the warping-bars. This group of threads is then carried from side to side of the bars, passing

around a peg on one bar, and then around a peg on the opposite bar, until the bottom is reached. Then back again in the same way. The spools meanwhile revolve on their wires, allowing the warp threads to be pulled until sufficient length of threads are stretched on the bars. This is the process of warping, and can easily be done at home for a small loom, but when a large loom is to be warped it is better to have it done by a professional beamer or skilled weaver. The ends of the warps are then fastened on to the yarn beam, the threads coming over the top. A warping-needle is then used for threading these numerous threads through the eye or "mail" of the "harness" or heddle. The heddle consists of wires or threads stretched vertically between two horizontal bars. Usually looms have two or more heddles, but the small table loom has two sets of eyes in the one heddle. Every alternate thread is threaded through the top row of loops, while the others are threaded through the lower loops, thus separating the warp threads. They are then threaded through another part of the loom, called a reed, which is filled with fine wires placed perpendicularly.

The threads now on two planes are carried

forward and fastened securely to the roll in front of the loom.

Having filled the shuttle needle with the weft thread, it is thrown with the right hand between the warp threads, and the reed is brought forward by the left hand to push the rest of the weaving firmly together. The left hand is then used for the next throw. Almost all weavings have quite a few inches of plain weaving to begin with. Darning can then be introduced, the process being similar to ordinary darning, taking up alternate threads of the warps, using a different needle for each colour. The threads are not cut off until the work is finished, although when a needleful gives out it must be fastened securely to one of the warp threads.

As the cloth is woven, it can be rolled by means of the spikes on the right hand of the cloth beam. Of course the weaving will not be cut out of the loom until all the warp is used up. It is surprising how many yards can be done on a small loom of this kind.

As the pattern in beautiful colourings gradually unfolds, the weaver becomes fascinated with the work. It has all the charm of fine embroidery, and yet can be done very quickly and easily.

CHAPTER XVII

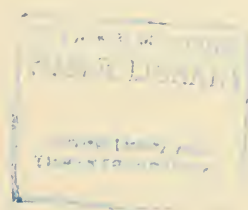
CROCHETED RUGS

IT is quite surprising what artistic rugs can be made from rags that have been torn into strips from one-half to an inch in width and dyed some pretty shade. Fine muslin, heavy unbleached muslin, and undershirts can all be utilized, and when dyed in the same dye will not all take the same shade, which gives a variegated appearance to the rug when completed that is quite effective. Some households have old chenille curtains which they have not the heart to throw away, although good taste has long since condemned them as hangings. These may be unravelled, when the chenille makes a good material for crochet. If not heavy enough, use two or three strands at once.

The most artistic results are obtained, however, by buying new material, or what are known as seconds, which can be bought in large cities for a nominal price by the pound.



STARTING A ROUND RUG OF FLANNEL AND ROPE



Lengths of 5 and 6 yards of outing flannel in various pale shades can be dyed, and when crocheted make soft pretty rugs.

In looking at the illustration of a girl crocheting rugs, it will be noticed that she is using inch-wide canton flannel and clothes-line. The use of the latter is invaluable, as it makes a heavy, durable rug which will stand years of wear. The rope is not crocheted ; it is just held in place and the flannel crocheted over it.

The finished round rug in the illustration is made from rope and an old chenille portière, the variegated colouring being in the chenille itself. When making the round rug, begin with a chain four stitches and join. Increase round to eight stitches. Increase eight stitches every round. If too full, work a round plain. Take up both veins of stitch, and work single crochet. The rug illustrated is a yard across, and has already seen service in a hall for five years, and, as yet, shows no signs of wear.

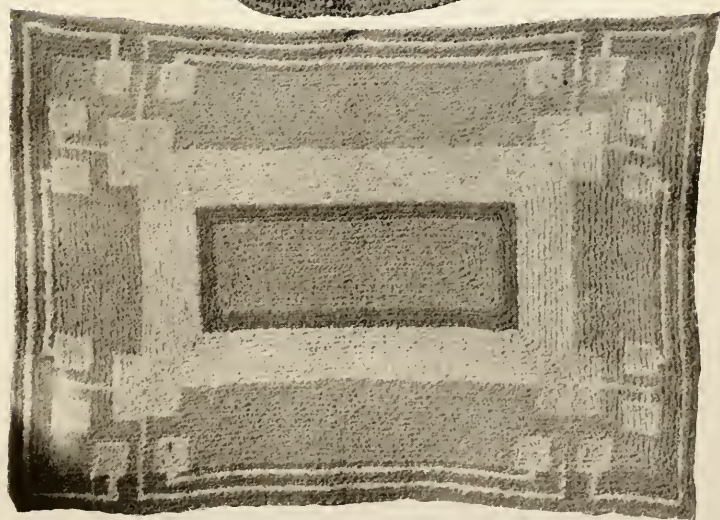
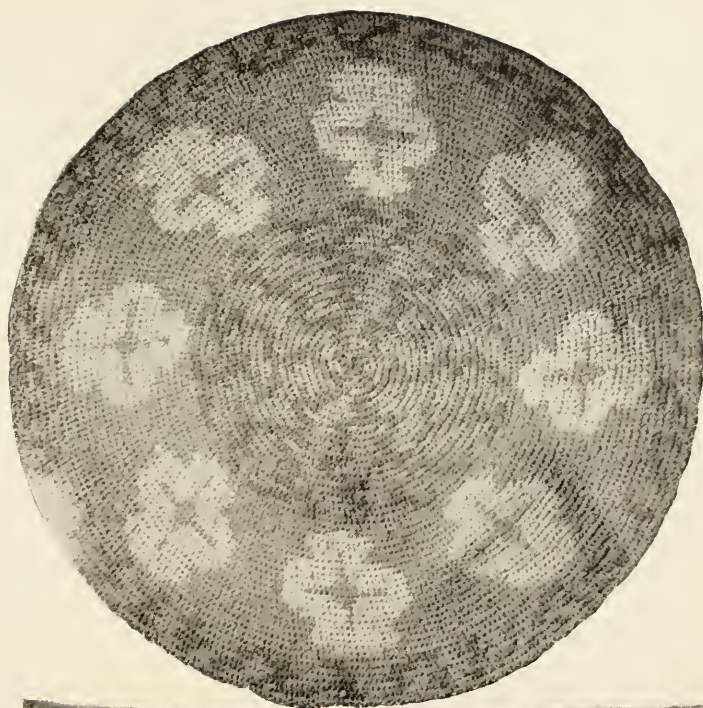
If seconds cannot be obtained in the outing, flannel and new material has to be bought ; choose some of the beautiful colours in Shaker flannel. They come in several shades of green and grey blue. This saves the trouble of dyeing, and these colours do not fade. The

old rose is flecked with white, and goes well with the new cretonnes and wall-paper.

A round or oval rug in front of the bureau or beside the bed makes a note of colour in a bedroom covered with matting. If for use downstairs, dark green would be advisable. Some people prefer to introduce a row of black or some contrasting colour, but nothing is prettier than the solid round or oval of the one colour.

Two beautifully designed rugs are made of unbleached muslin, dyed in exquisite shades. The smaller rug is in several shades of blue, while the square rug is in five or six shades of brown, varying from pale tan to the deepest shade of brown, with a touch of old rose introduced. These rugs were shown at the recent Exhibition of the National Society of Craftsmen, New York, and as much as \$15 and up is asked for them. It is their colouring, as well as their exquisite workmanship, that appeals to the lovers of artistic handcraft.

The distribution of colour needs considerable practice, but good results could be obtained by applying the dye with a brush after the rug is made. Of course, both sides must be done, first one and then the other, and the effect of blurring which would naturally occur



EVEN CROCHETTED RUGS MAY BE MADE BEAUTIFUL—
GOOD COLOURING AND ORIGINAL DESIGNS



would in no wise detract from the beauty. These rugs have no rope in them, as that was an idea of my own, and I have never seen others with anything inserted to make them heavy. The two crocheted rugs just described could be made heavier by having the strips cut an inch wide instead of half an inch.

A practical way of having an oval rug of flannel without rope is to crochet a good corner pattern intended for cotton crochet. This would give half the design—the other half could be crocheted together when completed.

A very pretty pattern is made from the following directions :—

To form Corner.—Crochet 27 treble, 3 treble, and slip stitch back to top of 3rd treble. Then 3 chain, 3 treble, 3 chain, 3 treble, all on top of last 27 treble ; 3 chain, 2 treble on side of treble, 2 treble in loop, 3 treble on treble, 2 treble, 3 chain, 3 treble all in loop of 5 chain, 5 chain, turn.

Second Row.—3 treble, 3 chain, 2 treble in loop of 3 chain, 7 treble on treble, 4 chain, 3 treble in centre, 3 chain in loop of 3 chain ; repeat from centre 3 times ; 5 chain, catch top of 4th of the 27 treble in the last row, 5 chain, turn.

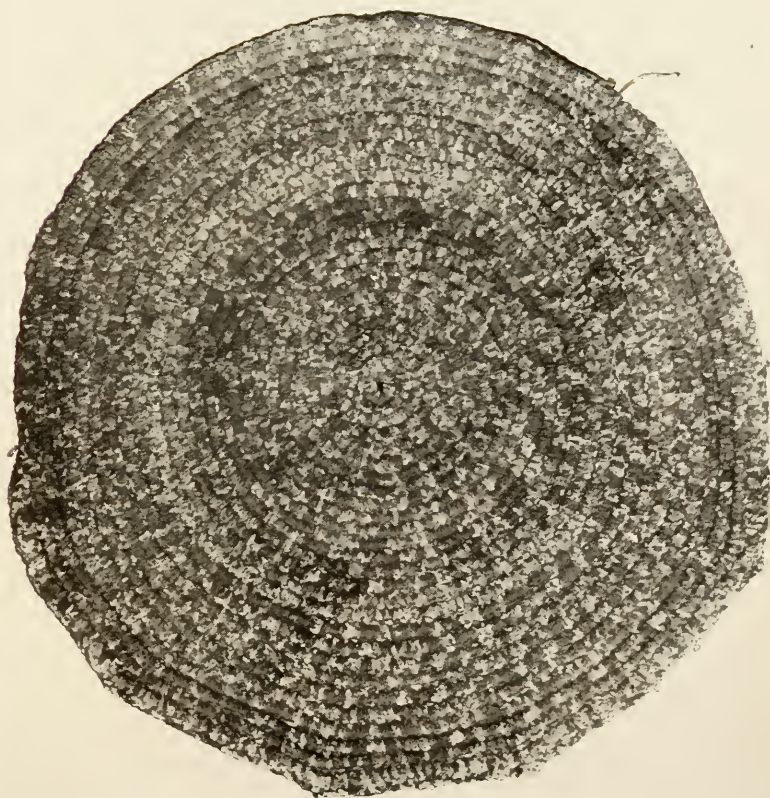
Third Row.—3 treble in centre, 3 chain, 3 treble in loop of 3 chain, 4 chain ; repeat from centre twice more ; 4 chain, 9 treble on treble, 2 treble, 3 chain, 3 treble in loop of 3 chain, 5 chain, turn.

Fourth Row.—3 treble, 3 chain, 2 treble in loop of 3 chain, 11 treble on treble, 4 chain, 3 treble, 3 chain, 3 treble in first loop of 3 chain, 3 treble in centre, 3 chain in loop of 3 chain ; repeat from centre 3 times more ; 4 chain, 3 treble, 3 chain, 3 treble in 3rd loop of 3 chain, 5 chain, catch 5th chain, turn.

Fifth Row.—3 treble in centre, 3 chain, 3 treble in loop of 3 chain, 4 chain ; repeat from centre 4 times more ; 4 chain, 13 treble on treble, 2 treble, 3 chain, 3 treble in loop of 3 chain, 5 chain, turn.

Sixth Row.—3 treble, 3 chain, 2 treble in loop of 3 chain, 15 treble on treble, 4 chain, 3 treble, 3 chain, 3 treble in loop of 3 chain, 4 chain, 3 treble from centre, 3 chain, 3 treble, 3 chain, 3 treble all in next loop of 3 chain, 4 chain ; repeat from centre twice more ; 4 chain, 3 treble, 3 chain, 3 treble in last loop of 3 chain, 5 chain, catch top of 5th treble, 5 chain, turn.

Seventh Row.—3 treble in centre, 3 chain,



CHENILLE RUG REINFORCED WITH ROPE



3 treble in loop of 3 chain, 4 chain ; repeat from centre 7 times ; 4 chain, 17 treble on treble, 2 treble, 3 chain, 3 treble in loop of 5 chain, turn.

Eighth Row.—3 treble, 3 chain, 2 treble in loop of 3 chain, 19 treble on treble, 4 chain, 3 treble in centre, 3 chain, 3 treble in loop of the 3 chain, 4 chain ; repeat from centre 7 times ; 5 chain, catch top of 5th treble, 5 chain, turn.

Ninth Row.—3 treble in centre, 3 chain, 3 treble in loop of 3 chain, 4 chain ; repeat from centre once more ; 4 chain, 3 treble, 3 chain, 3 treble, 3 chain, 3 treble, all in 3rd loop of 3 chain, 4 chain, 3 treble in centre, 3 chain, 3 treble in 4th loop of 3 chain, 4 chain ; repeat from centre in 5th loop, 4 chain, 3 treble, 3 chain, 3 treble, 3 chain, 3 treble, all in 6th loop of 3 chain, 4 chain. In 7th and 8th loops put 3 treble, 3 chain, 3 treble with 4 chain between, then 4 chain, 21 treble, 2 treble, 3 chain, 3 treble in loop of 3 chain, 5 chain, turn.

Tenth Row.—3 treble, 3 chain, 2 treble in loop of 3 chain, 23 treble on treble, 4 chain, 3 treble in centre, 3 chain, 3 treble in loop of 3 chain, 4 chain ; repeat from centre 9 times ; 5 chain, catch last of 29 treble, 5 chain, turn.

Eleventh Row.—This last row is finished with groups of picots, exactly the same as 13th row in lace. Finish with 25 treble on treble, 2 treble, 3 chain, 2 treble in loop of 3 chain, 5 chain, turn.

CHAPTER XVIII

PULLED RUGS

PULLED rugs that are made by craft-workers to-day bear little resemblance to the hideous pulled rugs of previous generations. In olden days, the cat, dog, and cow vied with each other for supremacy for ornamenting these ugly but durable floor coverings. To-day, however, they are made with broad masses of colour and a simple arrangement of line and form, making effective and artistic rugs. Indian, Mexican, Japanese, and Oriental motifs are all utilized for these rugs, and every now and then glorious masses of colour worked out in savage ornament delight the eye, particularly of those found among the Pacific Islanders, or the Navajo Indians.

Pulled rugs are made of various materials, each group of workers having special reasons for the materials they use. The Abnakée rugs are made of all-wool unbleached flannel

twill, which is afterwards dyed the desired shade. These are among the most beautiful and durable of the rugs, their weight and beauty of colour making them a valued possession which will last a lifetime.

The Sabatos rug is another form of pulled rug, and is made of native wool homespun yarn, giving opportunity to women in isolated regions, not only to make the rugs, but to weave the material from which they are made. The sheep are raised by the farmers, and their wives weave the material and dye the wool for the craft-workers who make the rugs. The foundation of the Sabatos rug is woven in a hand-loom from pure wool. It is then fastened securely into a wooden frame, and short pieces of the vegetable-dyed yarn are drawn through and separately knotted like those made in the Orient. This knotting of the yarn increases the durability of the rugs, but renders the making of them slow and laborious.

Rugs made of flannel are pulled through a good quality of burlap, making a raised surface, which, combined with beautiful colouring and a good design, makes a serviceable and artistic rug.



ABNAKÉE RUG. EGYPTIAN MOTIF



THE HOOK

The necessities for making pulled rugs are not many, the material, the frame, and the hook being the only requisites. The best hook is about 5 inches long, and can be made out of a 40-penny nail about a quarter of an inch thick, filed and smoothed into shape at the end, and is given a slight curve which enables the user to hold the hook horizontally and yet allows the point to pierce the burlap vertically. These hooks, with the frame, can be supplied by dealers who sell burlap patterns for the hooked rugs. The patterns sold by dealers are extremely garish, however, and are only used by country people who have not yet been influenced by the late development in this industry.

THE FRAME

It is best to use a light adjustable frame. It should be made of soft wood consisting of four pieces, two of them 2 inches wide and 1 inch thick and 4 feet long, with a row of half-inch auger holes bored equal distances about 3 inches apart down the centre of each piece, at either end. The two cross-

pieces should be 17 inches long, with a fixed peg an inch and a half from each end. The strips for the holes can then be adjusted to suit the size of the rug. Any carpenter could make such a frame. An unadjustable one can be made of any old frame about the house, or even the frame for an artist's canvas could be utilized.

THE MATERIAL

If flannel is to be used to make the rug, a soft wool flannel weighing about $3\frac{3}{4}$ ounces to the yard should be provided. As wool flannel cannot generally be obtained in suitable colourings, it is best to get them in white and dye them the required shade.

THE CUTTING

After the material is dyed, it is cut into straight narrow strips an inch and a quarter in width and the length of the material. It is best to have each strip about a yard in length. By folding a yard in four, the scissors will only have to go over the length of a quarter of a yard. The strips must be evenly and neatly cut, the distances being marked on

paper which is laid underneath the flannel. A piece of elastic with a nail at either end of the cloth will ensure the cutting of a straight strip if the cutter-out has not a straight eye.

MARKING OUT THE DESIGN

Having made or bought a good design for the hooked rug, it should be transferred to the burlap by means of a stencil. Lay the burlap as smoothly as possible upon a table, and place the stencil on it so that the edge will follow the straight line thread of the burlap. Secure it firmly to the table by means of thumb tacks. Liquid blueing may be applied to the burlap through the stencil with a round stencil-brush or a nail-brush.

It is not necessary to indicate all the colours which will eventually appear in the rug. At least 4 inches must be allowed outside the design when stamped, in order that it may be put into the frame. This extra burlap is afterwards folded and turned under when the rug is finished, and sewn in a neat hem on the under side.

Having placed the burlap firmly and neatly in the frame, the hooking of the flannel is the next process. Take the end of the strip

of cloth with the left hand, holding it between the thumb and first finger. Hold the end close to the burlap under the frame where the work is to be started, usually at the right hand lower corner. Take the hook in the right hand, push it through the burlap, and catch the end of the strip, bringing it through the burlap about three-eighths of an inch. Then push the hook through about two threads and bring up a loop of equal length, continuing to bring up loops until the strip is all used. The end of it must be brought up to the surface of the rug. A most important point to remember is that the flannel on the under side must be kept close to the burlap and have no loops at all. It will be seen by these directions how extremely simple the process of rug-hooking actually is, and yet there are few crafts where greater differences can be seen in the workmanship than in pulled rugs.

There is quite a knack in pulling the loops up so as not to catch the burlap with the hook. One short quick movement of the whole arm, not of the hand, is required. This movement is upward and slightly backward. The loops need not of necessity be of equal height, in that they are more artistic if slightly

uneven. When the rug is completed the high ones are clipped and the short ones left between. The clipped pieces vary slightly, giving a soft velvety surface infinitely superior to the old-fashioned hooked rugs, which had straight rows of loops all of uniform height.

Care must be taken to bring the loops up at different angles, but avoid symmetry. It is best for a beginner to work from right to left, but a good craftsman finally gains complete mastery over materials, and can work rapidly up or down, or from left to right.

As each frameful is filled and clipped, the burlap is moved, keeping the edges true and the corners square until the whole rug is finished. If a large rug is made, work the centre first, and then the border.

AMOUNT OF MATERIALS TO USE

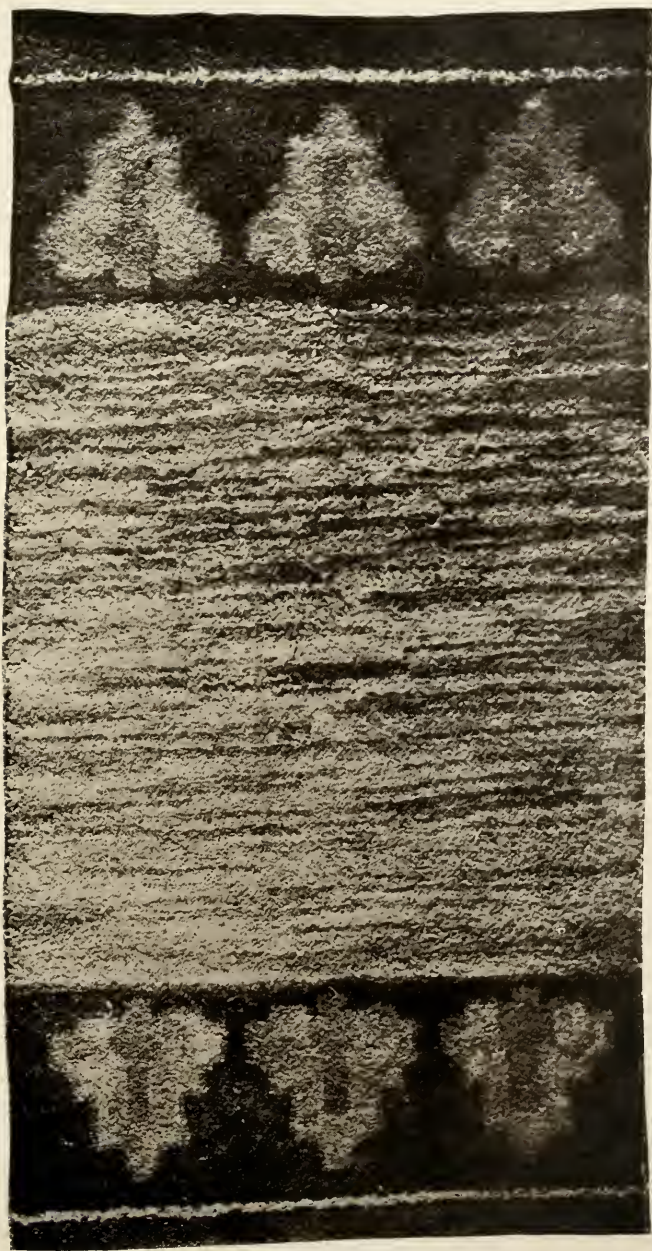
It is always difficult to determine how much material to prepare, as this is varied by the height of the pile. A good Abnakée rug takes one yard and a half of flannel for each square foot of rug.

It is impossible to say definitely how long

the work takes to do, as one woman can do twice as much as another in the same length of time. A skilled worker can make a rug 4 feet by 8 feet in fifty-four hours, and as the market price of such a rug is from \$45.00 to \$50.00, it can be seen that the making of pulled rugs is a profitable employment. The usual price for these rugs is \$1.25 a square foot, but the more elaborate patterns command a higher price. When the colouring, design, and workmanship are all good, these rugs find a ready sale when sold through the Women's Exchange or Arts and Crafts Salerooms now so plentiful.

DYEING

Where it is possible, it is best to use good vegetable dyes, but as these are very hard to obtain, there are numerous other dyes which can be used, all of which necessitate a careful following of the directions given with them. Wool materials can be dyed with a dye intended for cotton, and vice versa. An even colour in dyeing should not be aimed at, as a pretty shaded effect is preferable; this is given by the flannel varying somewhat in shade. Water can be added to the second dye



SIMPLE DESIGN FOR A PULLED RUG



bath ; the cloth immersed in this will be a paler shade than that in the first dye bath. It is well, therefore, to mix the strips so as not to get all pale in one, and all dark in the other part of the rug.

While wool flannel makes much more beautiful and durable rugs, cotton flannel is not to be despised, and artistic rugs can be made from it. It can also be obtained in good colours—the old rose, green, and delft blue all being beautiful in the Shaker flannels.

COMBINATIONS OF COLOUR

A study of good Oriental rugs is of inestimable value in combining colour schemes. The way the colours blend and are massed must be carefully studied and thought out. It is very important that pulled rugs should have the richness seen in those from the Orient. Avoid, above all things, any garishness in colouring. To evolve a happy medium of strong rich colour beautifully blended is an art in itself, and needs considerable practice. Some of the most beautiful of these floor coverings have had the following combination of colour beautifully blended. The groundwork of the rug was rich terra-cotta, with

a border design in dark blue, while olive green and soft yellow were deftly blended, making the rug harmonious with almost any colour scheme. As in Oriental rugs, the introduction of black or cream is very helpful in getting the desired results, but it must be remembered that colours of the same depth must be combined. A rug with a pale soft field must not have a border in strong contrast, or vice versa. Old rose, soft greens, pale yellows, cream colour, and dark brown all harmonize with tan. They are also very pretty when only two or three colours are used. Blue and white for a delft room, red and black relieved by cream for a living-room, in which red predominates.

The extremely simple designs illustrated are better worked out in colours.

The rug with the border at each end is in two shades of blue, and was made by a beginner. The more elaborate rug is one of Mrs. Albee's,—its workmanship, colouring, and design are excellent,—and it can readily be understood why Abnakée rugs rank as the best of any of the pulled rugs.

CHAPTER XIX

BEADED DRAWN WORK AND OTHER NOVELTIES

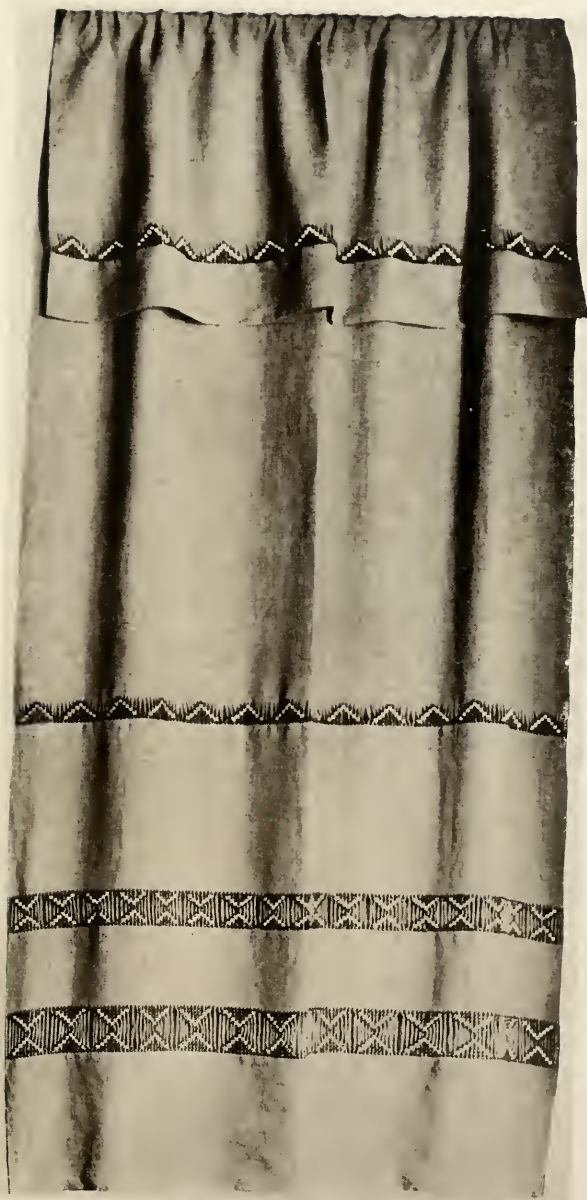
THE longing for something new is in the heart of every woman. While the ability to invent is not given to all, there are many who are quick to adapt the novel ideas of others to their own immediate needs. A long-recognized authority on all kinds of bead and basket work is the clever craft-worker, Miss Mary White, and it is to her we must give credit for this new idea of working bands into drawn threads for the ornamentation of fabrics. The work is so easy that any novice can do it, and yet the results are far beyond the most sanguine expectations.

On glancing at the illustrations, the effect can be readily seen. The curtain is made of tan crash of coarse mesh. The tablecloth is made of coarser linen almost brown in colour, very open in texture.

Linen canvas, or, in fact, any material with an open weave and one in which the threads can be easily drawn, can be used for this work. Burlap is also a good material, but as the coloured burlaps fade it is wiser to put such beautiful ornamentation on the undyed burlap. A good quality must be chosen, and one without dressing. Another excellent material to use is monk's cloth, which is now made in America, and retails at thirty-five cents. Until lately this decorative material could only be bought among the imported materials, and cost \$1.25 a yard, but it was 50 inches wide, while the domestic monk's cloth is only 36 inches. The material can be obtained in a good range of colours.

At first it is a little difficult to see how the beads are threaded, but when the idea is once grasped it is the easiest and pleasantest kind of work to do. The cost is very slight, as the cheap glass beads sold for kindergarten work can be used, unless real Venetian beads in beautiful soft colours can be obtained. The only tool required is a long thin darning-needle.

The process is extremely simple. The curtain is made in this manner. Begin at the top, below the 3-inch hem. Draw the threads for an inch, after first out-



CURTAIN OF BEADED DRAWN WORK

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lining them at the selvage. The ravelled strands of linen can be used for sewing on the beads. Thread a darning-needle with one of the strands, and fasten it with one or two stitches to the lower edge of the drawn portière close to the selvage on the left side of the curtain. Bring it under the horizontal threads, and cut a little to the right of the twenty-seventh thread. Then string nine opaque beads. Draw the thread tight and press the beads up between the vertical strands, drawing three of these threads between every two beads. Then run the needle from right to left through the nine beads, holding the beads up with the left hand so that the vertical threads are below the beads. Then proceed from left to right, threading eight beads. Continue this, lessening the number of beads each time until one bead is left for the point. This is strung and pressed up between the fourth and fifth groups of threads, and the needle is run through it from right to left. The thread is then fastened off.

The curtain illustrated shows the ornament worked in green and white beads. The lower borders consist of a double row facing each other, beginning with seven beads. This is

drawn about 2 inches in width, while the bottom is drawn nearly $2\frac{1}{2}$ inches. The difference in the width gives a charming variety to the striping of the curtain. It will be found that the simpler the designs the more decorative the effect.

White and one contrasting colour seem to be the best suited to material with bead decoration. In a red room, red and white would be beautiful, while in a brown room a rich orange would make a rich note of colour. Another method of varying the colour scheme is to have the alternate points in contrasting colours, one in white and another in green, while another may be in blue, and are also very pretty in green. In fact, any colour that suggests itself to the worker may be used. Another variety of colouring is given by having the centre beads of contrasting colour, but this does not appeal to me as much as the more blocky way of planning the colouring.

On looking at the illustration, notice the very deep hem at the bottom of the curtain ; it is about 9 inches wide, and extends to the ornament. Such a curtain would be extremely beautiful as a long curtain in a winter home, or would be a charming

decoration for a portière in a seaside or mountain cottage.

The tablecloth has the threads drawn at right angles. This is made of brown open linen resembling domestic monk's cloth, but is much softer in texture. It is sold in New York at 75 cents a yard, 50 inches wide. The design on this is almost the same as that on the curtain, but each point is started with two beads instead of one. Green is the only colour used for the beads. This decorative treatment of a table-cover is singularly appropriate, as the beads make it heavy enough to keep well in place. The same idea can be carried out in many of the coloured open-meshed linens. Cairo lattice-cloth can also be made use of; it comes in a large range of colours. This requires a much larger bead than the linen, but is very beautiful and unusual.

The beads can be obtained from educational booksellers, who frequently have kindergarten supplies, or from shops where Indian goods are sold. At the latter a larger variety can, of course, be had, varying considerably in price, according to the quality. In this work, however, it is not the quality of the bead that counts, for they must be chosen for the

bold decorative effect they will give, and very fine well-cut beads might look quite poor when worked.

The rapidity with which this work can be done is one of its chief charms, and the effect when finished is a great encouragement to the artistic craft-worker, who soon finds that she can evolve ideas for herself when the rudiments are once mastered.

STRING LACE

Another new idea that appeals to drawn-thread workers is the making of lace from string. It somewhat resembles appliqué and stained glass, although it has the characteristics of lace. It is in reality an evolution of old Italian Point, and was originated at Pratt Institute, Brooklyn. The name of Pratt Point was given to it, and the art is taught in the classes for needle point lace held at the Institute.

Instead of the outline being in thread or braid, as in Italian Needle Point, the design is surrounded by Manila cord.

The method followed in making Pratt Point can very readily be understood by examining the illustration of a table-centre.



PRATT POINT—AN EVOLUTION OF OLD ITALIAN POINT LACE

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The design is stamped on heavy paper, which is backed with muslin, then it is outlined with a Manila cord in a size proportionate to the article to be ornamented ; this is held in place with fine stitches matching the colour of the cord ; the spaces between the design are filled in with some of the numerous lace stitches used in Italian Point.

Coloured flax threads are employed for making these, so that the work presents the rich and beautiful appearance of leaded glass, and tones with the natural colour of the Manila cord. In some cases the cord is covered entirely with buttonhole stitch, while in many cases threads at intervals only partly conceal the cord. When the work is finished, the paper is torn off the muslin, and the centre, whether of washing material or cloth, is neatly sewn in the open space ; the muslin, of course, is afterwards cut away.

The insertion for the curtain is made separately, and is afterward let into the curtain when entirely completed.

The oblong centre is ornamented at one corner with Pratt Point, while the rest of the centre is finished in embroidery, harmonizing with the colours introduced in the corner decoration.

On examining this illustration, it will be noticed that a great variety of stitches are introduced; these are more readily learned when making a large piece of work of this class than they would be when making fine lace, and the results are much more decorative. A good worker in Pratt Point invariably becomes a good lace-maker.

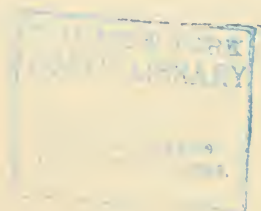
A BEAD CURTAIN

A new idea for curtains has just been developed by a another clever craft-worker. Geometrical designs are drawn on the material, which may either be burlap, or monk's cloth, or any heavy cotton material. In fact, it is not necessary that it should be cotton, as this design would look especially well on inexpensive grey blankets. This kind of bead decoration is peculiarly well adapted for ornamenting a portière, but it is also very effective when it is employed for curtains.

The drapery illustrated is made of green cotton cloth, of a heavy quality, with a white design. It is formed by beads and darning cotton. The pattern is first darned with the white cotton, then the beads are sewn on to the material, and the darning continued to



SHOWING HOW HANGINGS MAY BE BEAUTIFIED BY PRATT POINT.
THE COLOURING IS EXQUISITELY SOFT



form a kind of decorative shadow to each figure. The border is done in exactly the same way, but purposely with more symmetry.

The idea can be developed according to the taste of the worker. Yellow beads on brown, pale green beads on green, or blue beads on green, would any of them be effective. It is delightful work to do, as it goes quickly, and then of course it has the charm of novelty.

CHAPTER XX

NETTING

THE uses to which netting can be put are numerous, as not only can they be used for centre-cloths and doilies, but they give a specially piquant look to soft white linen curtains so charming in Colonial bedrooms. Insertion can also be made for the trimming of these curtains, and can be used for shirt waists. In coarser mesh netting is worked as a finish to bedroom towels, not for everyday use, however, but when we wish to give the best of our hospitality.

As a trimming for the edges of a bureau scarf it is ideal, and will outlast the material which it trims. If the work were laborious it would seem superfluous to make this hand-made edging, when so much that is good can be obtained made by machinery, but the advantages of a pleasant form of fancy work combined with a useful one make it a particularly delightful pastime.

The materials needed are a mesh and a netting-needle. These are made of steel, bone, wood, or ivory. Steel is used for silk, cotton, etc., but the other kind are intended for wool. As the moth is such a lover of wool, silk or cotton only need be considered. The needles come in sizes from 12 to 24; the last are very fine, and are only used for the finest kind of netting. The meshes correspond to the size of the needle, and are made of the same material, but steel or wood are best for ordinary purposes.

The needle is filled by passing the end of the thread through the small hole at the left-hand point, and firmly tying it. Then the thread is wound on the needle just in the same way that a tatting-shuttle is filled. If a large stitch is decided on, the mesh must be a thicker cotton. Most workers prefer to attach the foundation to a ribbon terminating in a loop through which the foot is slipped. Others prefer to use a heavily weighted netting-cushion, which they place on the table, and to which the foundation is fastened.

The start can first be made with a long loop of thread which should be fixed to a support, one end of the thread on the needle being attached by a knot to this loop. The mesh is then

taken in the left hand, between the thumb and two first fingers, and held close up to the knot above mentioned, and under the thread. The needle being held in the right hand, between the thumb and forefingers, as shown in the illustration, is to be passed under and round the left hand, so that the thread may form a loose loop over all the fingers except the little one. The thread must be held in this position between the thumb of the left hand and front of the mesh. The needle is then passed back again round the mesh, but allow the thread from it to form a larger loop to circle the little finger also. By this action the needle will be brought around in front of the mesh, and must then be passed under the first loop between the mesh and the fingers holding it; also through the foundation loop; and lastly, over the part of the thread which extends backwards from the thumb to form the second loop. The needle is to be held in its position by means of the mesh and the fingers, until the right hand can be brought round to pull it through the passage in which it is engaged. The needle being drawn out, and once more in the right hand, all the fingers of the left hand are disengaged from the loops of the thread, except

the little one, which must still retain the second loop which was formed round it. By means of this hold of the little finger, the thread must be drawn up to the mesh, and the knot formed by so doing made tight on the foundation.

A succession of loops can be made by a repetition of this process, until as many have been formed on the foundation as may be necessary for the width of the net. As the mesh is filled, or covered by these loops, it is to be pushed on to the right, and some loops allowed to drop off at the left hand end. The whole row being done, and the mesh drawn out, a row of equal loops will be found hanging from the foundation attached by knots, and sliding freely along it.

Having thus formed one row of meshes, the work is turned over, so as to reverse the ends of the row, in order that in netting a second row back again it may be done in the same direction as that in which the first was made, namely, from left to right. To commence this second and all subsequent rows, place the mesh again close up to the bottom of the last row of loops, and repeat the action with the needle as before, only that instead of having to pass the needle through

the loop of the foundation, pass it in succession, for every new knot through each loop of the row already done, each knot being thus formed at the bottom of the loop above it.

Simple netting forms diamonds and ovals. Take care that every stitch be drawn up evenly quite close to the mesh. To increase in netting, do two or more stitches in one hole.

Square netting is a simple stitch done so as to have the shape of a square instead of diamond. Begin on one stitch, working backwards and forwards, always doing two in the last stitch of every row until you have one hole less, counting from the point up one side, than a design requires. Do one row without increasing, and then net two together at the end of every row until the two last stitches are taken as one.

Double netting. Pass the thread twice around the mesh instead of once, thus making a long stitch.

Long stitch. This stitch is used when some of the stitches in the preceding row have been double stitches ; to ensure the loops of this row being even, the knot must not be drawn too close to the mesh in working the single stitches of the previous row.

To make a shell edging two meshes are required, a flat mesh half an inch wide and a round mesh known as No. 12. Do twelve stitches in one with the flat mesh ; turn and do two in each one with the small mesh ; then two rows of one stitch in each one. The mesh shell should either begin so that the edges will sit lightly over the former. The shells will need eighteen stitches for the first row.

It will be seen that the use of different widths of mesh gives a great variety in netting. A knitting-needle or lead pencil can be used as a mesh.

To net the fringe for a doily, surround the plain linen with stitches and then net six rounds of plain netting. When the seventh round is reached, instead of putting the thread round the needle before working, pass it twice round. By this means it forms a row of long loops. Then do one round of plain netting. Then net the long loops into every loop. The next round is a little different, as two loops are taken up together and firmly netted. Two long loops are then netted for the next row. Then come two more rows of plain netting, after which the points are netted. Skip four, and begin to net one of

the points, going backwards and forwards, putting two stitches into one until it is reduced to a sharp point. Fasten it off securely and make the second point, beginning each point at every fifth hole. This will form a pretty little fringe for the doily.

When making doilies or tablecloths the stitches need not be counted, as it is only necessary to surround the centres with the holes ; the nearer the loops are together the finer the edging will be.

In looking at the illustration of a curtain, this can be edged in the same way as the doily, and it consists of two rows of plain netting with long loops, followed by eight rows of plain netting. Then more long loops, and finished by two rows of plain netting. It will be best to sew the rest of the edging on to the outer edge of the curtain. The scollop in the illustration has been sewn on to the curtain after it has been made. One scollop is very much like another, except the difference in long loops.

CHAPTER XXI

OLD-TIME QUILTING

MANY beautiful quilts made by our grandmothers are now treasured possessions in the homes of to-day. There is a charm about the exquisite workmanship and quaint colourings that appeals to us, and it is not a matter of surprise that to-day there are still women who make their living by the quilting craft. Puritan housewives and pioneer maids were adepts at this work, and this needlecraft flourished all through the eighteenth century, and continued to be popular to within the last forty years. Matrons of to-day tell us of the quilting parties they attended in their girlhood, which were social events keenly looked forward to by young and old.

When the patchwork was completed and lined, it was placed in the quilting-frame, which consisted of four bars of wood, 10 feet long. The bars were crossed and tied

firmly at the corners, and the frame placed on the backs of chairs, thus enabling the quilters to sit around and do the quilting. When the quilt was finished as far as the hand could reach easily, it was rolled up on the bars and clamped again at the corners, and continued until the centre was reached.

Toward tea-time the husbands and brothers used to join the party, and a merry social time was then enjoyed. After tea, the quilting was sometimes resumed, and the men helped or hindered by waxing the thread and threading the needles for the ladies.

In Colonial days the quilting parties served to break the monotony, of the long winters, and were extremely popular, for some people attended as many as thirty quilting parties in a winter. Much zest was given to them by the exchange of calicoes, pompadours, India chintzes, and high-priced French cambrics. They discussed designs and admired materials, and talked over combinations of colourings with as much spirit as though it were of as much importance as a matter of state. The materials worked into these quilts bear little resemblance to the cheap aniline-dyed calicoes of to-day, for many of them have survived a generation of wear, and their colouring is

as beautiful as the day they were made into patchwork.

The amount of time spent in careful fitting, deciding on a dainty design, and experimenting with intricate stitches can hardly be credited, but the women of that day revelled in the work, and therefore we need not pity them. A beautiful quilt in the possession of an old Quaker family in Germantown was made from the pieces of silk supplied by a maker of Friends' bonnets. This coverlet looks like the back of a dove, with its soft grays and tans of which it is composed.

Quaint descriptive names were given to the various patterns, such as "Log Cabin," "Job's Trouble," "Rising Sun," "Dove in the Window," "Crows' Feet," "Love's Knot," and such floral names as "Dutch Tulip" and "Rose of Sharon."

The making of the quilt was done in the following manner:—The pattern for the patchwork was first cut out of stiff paste-board, and the pieces of material cut from the patterns. As every scrap was used up, the small patterns had numerous seams which hardly showed when the quilting came over them. The making of the top of the quilt

would be the fancy work of months, but the interest never seemed to flag.

When the patchwork was completed it was laid on the lining with layers of wool or cotton wadding between, and the edges were basted all around. It was then ready for the quilting-frame. Many of these old-time bedspreads dispensed with the patchwork, and were merely quilted. These were usually termed "pressed quilts," and were very often made in white and cream washing materials. They were often finished off with hand-made netted fringes which were works of art in themselves. Most intricate designs were employed in the making of these pressed quilts, and sometimes not a quarter of an inch of surface would be without quilting stitches.

In the earlier days a very laborious process of marking was resorted to. A string was dipped in thick starch, and was then placed on the quilt and tapped so that the mark of the starch was impressed on the quilt. This left a faint line that could be brushed off when the quilting was done ; later, different coloured chalks were used. These days of ready-marked materials for needlework, and practical methods of transferring patterns, make us

realize that these old-time methods must have been very tiresome.

When a counterpane has been quilted, it needs finishing neatly. There are several ways of doing this. The piece is taken out of the frame and laid on a large table, and cut neatly on the four sides. The edges are neatly turned and seamed or bound with white, or, if it is a silk cover, it is done with a pretty coloured ribbon that harmonizes with the predominating shades. Sometimes when the quilt consists of a set pattern done in one solid colour on a light ground, 2 or 3 inches of the dark shade is used for the border.

All kinds of fancy stitching were used to embellish the quilts, herring-bone, outline stitch, and cross stitch. Sometimes a dainty little flower was worked in embroidery silk in each pattern, and again accent was given by a spot of dark colour worked in silk. Occasionally a bold flower was outlined to bring it into strong relief. In fact, there was no end to the ideas and contrivances for making this handicraft original and distinctive, and each worker vied with each other to make the most original and beautiful bedspread.

In looking at old-time patchwork quilts, the day in which they were made can be told

by the prints and calicoes that were used in their make-up. These old-time prints were certainly much more beautiful than those of to-day, but in the earlier Colonial days calicoes were scarce, and old woollen garments and worn-out flannel sheets and old coat linings were brought into service, after first being dipped in the family dye-pot of old blue or madder.

Long ago bits of stuff were sold in small bundles at country auction sales, and many were the keen bidders who bought up these remnants, which were usually woollen. Quilts made of washing materials were a later innovation.

It was like listening to a story to hear an old lady describe a quilt into which she had worked pieces of "my daughter's wedding gown" and "my son's cloak." The quilt was replete with memories, for part of the silk bonnet worn at her son's wedding was lovingly stitched into it, and the creamy portions of ivory satin were remnants of her own wedding gown.

There are many more profitable employments than the rather tedious one of quilting, but there are times when a girl wishes she were familiar with the process, if only to be

able to help others. This knowledge might be invaluable when she wishes to instruct some poor woman into the mysteries, or when she feels the opportunity has come to introduce it into the almshouses, for, though slow and comparatively unremunerative, it is very pleasant work, and appeals to the aged poor. It is congenial to be gathered together round a frame, and makes for good fellowship in communities.

CHAPTER XXII

ARTISTIC DARNING

THE needle-workers of to-day have much cause for congratulation that the most appreciated and most artistic kinds of needle-work are those that require the least labour. In comparing embroidery of even twenty-five years ago with that of to-day, an immense difference can be noticed in not only the kind of stitch used, but in the designs and motifs employed.

The simple stitch of darning is now all the rage, and many beautiful traycloths, bedspreads, and tablecloths can be made attractive by this means. In looking at our illustrations, it will be noticed that coarse materials are invariably made use of, and that the darning itself is not by any means fine. Hand-made crash, Russian crash, and linens of all descriptions are used. Variety is given to the work by the direction of the lines of darning. It will be noticed that the oblong traycloth is



PORTIÈRE OF MONK'S CLOTH WITH STAINED BLUE BORDER
THE PATTERN IS WORKED IN DARNING IN TWO SHADES OF
BLUE

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TILDEN FOUNDATIONS.

worked in the coarsest white cotton, and the most beautiful effect is obtained by running the darning horizontally and diagonally across the spaces.

A distinctive feature of the work of to-day is the introduction of contrasting colour appearing from underneath the darning. This is done by means of a stencil or wood block, the latter, however, being the most recent plan. This is not at all difficult to do. To make the block a close grain of wood must be chosen—holly, boxwood, or maple, and it must be from half an inch to one and a half inches in thickness. The block must then be planed and sand-papered on both sides. Then trace the design on to Japanese paper, and press it on the block. The background of the design is then cut out by means of a sharp penknife, thus allowing the design to stand out in relief.

After having made the wood block, the next process is the making of the pad, which consists of squares of muslin somewhat larger than the block itself. Lay these upon a plate, or nail them to a small board. Now use a little dye, mixing it first with a little mucilage. Spread it over the pad until it has thoroughly absorbed the colour. To determine whether

the right amount of colour has been put on, turn the pad over, and if it does not drip there is not an excess, and probably just the necessary amount. Now take the wood block and press the carved side down upon the pad, and wipe off all the colour. Repeat this a number of times, until the pores in the wood block are completely filled with colour. Then polish with a soft cloth, and it will be found that the block is in good working condition. In printing a design like the traycloth before referred to, it would only be necessary to make a wood block of the star and the dividing line between them. It will be necessary, therefore, to plan the design when it is being printed on the material.

Tack the fabric tightly on a drawing-board. Then press the wood block on a pad, and when it has absorbed a thin even colour, stamp the fabric with it. This will give a beautiful tinted groundwork for the darning. Many needle-workers stamp the colour on the large masses in the design, and have none on the intervening spaces.

On examining the traycloth, it will be noticed that the centre ornament has been treated with a wood block, and also the four corner ornaments. These are outlined with



A HANDKERCHIEF CASE WITH BACKGROUND AND PATTERN
DARNED. TABLE-CLOTH SHOWING FINE BACKGROUND
DARNING



embroidery stitch, and then one row of darning worked in the printed space. The centre part is more solidly worked. The spaces between the four corners have a very light and graceful effect by being in contrast to the corners.

The chair-back design again shows the introduction of colouring in the solid parts, but in this case the printed colour is almost the same as the darning. A very pretty effect is given by the symmetrical lines of the background borders.

In most of these modern pieces of needlework, darning is introduced to hide the stitching of the hem line.

A very beautiful handkerchief-case had the entire background darned, while the flowers, which were also darned, were made with much finer stitches and were then outlined with a dark thread.

A tablecloth, divided in sections by drawn work, shows some very fine background darning, the design appearing in linen thrown in relief by the exquisite workmanship of the darning. This is perhaps the most beautiful of the pieces illustrated. Only one skilled in needlecraft could ever get this effect in darning. This tablecloth shows how the

results are obtained. The background of the design is coloured first, and the ornament is delicately outlined in embroidery stitch. Then the background is carefully worked in. The illustration shows half the cover complete.

The pillow from Pratt's Institute shows an altogether different treatment, for here no outline marks the design, darning being the only stitch employed.

The book, with its cover ornamented across the top, shows most beautiful workmanship. The material is a coarse crash, making it easy for the needle-worker to take up alternate threads.

CHAPTER XXIII

RIBBON WORK

MANY believe that the fashion for ribbon embroidery is entirely new, but our grandmothers and great-grandmothers were adepts at this kind of work, and many are the dainty work-bags and scented sachets to be found among our treasured relics of the past. The work done by our ancestors imitated garlands and posies, in delicate rococo designs. Such exquisite work was done by them, but, even if we could imitate it, we would scarcely give the time or fatigue the eye by so much detail. The productions to-day, however, are larger, bolder, and more decorative, and even wearing apparel, pillows, and portières are often decorated in this effective way. Coarse stitchery is now introduced in addition to the ribbon work.

The fine china ribbons were the only kinds used long ago for this kind of work, but nowadays we run the gamut of pompadour,

rainbow, shadow, silk, and heavily corded ribbons, as well as many varieties of fine silk ribbons. With this great quantity of material from which to choose, it is not difficult to make very effective schemes, and many designs sold for crewel work can be utilized for ribbon embroidery.

Our illustration shows a cushion of heavily corded silk, with a bold design of hollyhocks, shaded from deep red to pale pink. In the centre of each flower a space is left, in which is inserted a small barrel button, covered with yellow silk. Some coarse stitchery outlines the silk surrounding the button. The width of the ribbon forms each petal, and is turned in at the end—coarse corded shaded ribbon is used. The leaves are embroidered in shaded green crewel wool; the ground forms the centre of the leaf. The cushion is outlined with a moss-green silk fringe, matching the colour of the leaves. The stalks are also worked in crewel.

The hollyhock seems the favourite flower for this kind of work, for not long ago a very effective portière was made of this design. The ribbon used was wide, and the edge was gathered tightly in the middle and secured on the outside with invisible stitches. A raised

button finished off the centre of each flower. Eight flowers, without any leaves, forming a stripe, decorated the top part of the portière. The four groups of flowers were separated by a heavy stem in crewel stitch, which was terminated at the base of the curtain by some broad flat leaves, a dark and light leaf alternating. The work on this portière was very effective, and yet did not take many hours to do.

To be a good ribbon-worker, great care must be taken in handling the work, so that it is kept clean and fresh while it is being made. The special charm of ribbons is that they may be tinted to imitate faithfully the delicate forms of leaf and flower; even a crumpled petal or a withered flower may be suggested. Spontaneity of effect must be striven for, as the moment the work looks laboured its effect is lost. It is well to have some natural foliage and flowers to copy similar to those the worker wishes to reproduce in ribbon; thus she can detail carefully and far more beautifully the characteristics and features of the natural objects. After the work has been carefully copied from nature, vigour of line and curve can be aimed at, when the delicate nuances of colour will at once be

apparent. Touches of embroidery are of importance, and give finish to the work. Stems must be embroidered in stem stitch, and centres may be worked in French knots or a button covered with satin stitch for the heavier work. Filoselle, or embroidery silk or lustrine, may be used to embroider with.

Apple blossom is very effective when worked, and is a simple flower to copy. A thin silk taffeta ribbon should be selected, about half an inch wide. The five petals are formed by gathering in the centre, and turning under at the end of each petal. A large French knot is in the centre, and the nine lines radiating from it can each be terminated with another French knot extending out of the petal. Each leaf can be made like the petal, using a dark green for some of the leaves, and possibly two paler greens for others, so as to give variety. The flowers may be of cream or pale pink, but in any case the buds must be a deep pink. The stems can be formed by heavily embroidered stem stitch. Many people admire dainty, finicky work, but others think it a waste of time, and very ineffective. In ribbon work especially big effects are to be aimed at, and tiresome little work avoided.

Since the revival of ribbon embroidery a few years ago, there have been many new adaptations of this fascinating kind of needle-work. None, however, have given such good results as the present fashion of broad massing of colour. The distinctive feature of the present embroidery is that, instead of dragging the ribbon through an expensive material, the points of the leaves and petals are overcast, gathered, and neatly turned under and held in place with invisible stitches of fine silk, which must, of course, match the colour of the ribbon exactly.

The advantage of doing the work in this way is very obvious, for very broad ribbons can be used, and those of much heavier quality give the work a richer and bolder effect. An illustration shows a handsome pillow of ivory bengaline. The flower is made of one of the new shaded ribbons, and tones from pale pink to deep red. The same corded ribbon is apparently carelessly tied round the stalks, and held in place by invisible stitches. The leaves are made of quite a dark green ribbon, which is about an inch and a half in width, and the leaves are shaped with the needle. Stability is given by the entire leaf being veined with embroidery

silk stitched through to the background. The stems are made with very narrow ribbon, which is rolled and neatly sewn to the background. The thorns add to the decorative qualities of the pillow. The centres of the flowers are worked in embroidery silk and French knots.

This kind of embroidery lends itself not only to all kinds of pillows, but is particularly well adapted for ornamenting screens. The rapidity with which the work can be done, and the effective results obtained, make this kind of ribbon embroidery a very popular form of needlework.

There are many kinds of ribbon sold for doing this work. Some are of heavy ribbed silk, while others are soft like Louisine, which has enough body to prevent its crushing as it is being drawn through the work. Ribbosene has a smooth surface, but it is rather flimsy and perishable, and is not used as much as it was. Ombre, or shaded ribbons, sometimes called rainbow, are also sold, but care must be taken when using these so that the light will come where the brightness strikes the flower. Beautiful effects can be obtained by carefully arranging for a good play of light and shade. The ribbons sold for doing the work come in



CONVENTIONAL FLOWER MOTIFS ARE MOST EFFECTIVE FOR
RIBBON-EMBROIDERY



several widths and many shades. The work must be done with a crewel needle, and the ribbon must be cut into small pieces not more than from 6 to 12 inches in length, or it will get stringy by being pulled through the material too many times.

In making a flower petal, begin the work at the base, bringing the thread up at this point and putting it down to the wrong side at the top of the petal. The leaves should also be worked in the same way. It is best to get ribbon wide enough to fill a leaf or a petal at one stitch. Hold the ribbon in place at the back, with tiny stitches of silk matching the ribbon exactly, each petal or leaf being outlined with embroidery stitch. It is best, as I previously mentioned, to embroider the stems in stem stitch ; centres are worked in French knots, or raised satin stitch. Tendrils should also be embroidered.

In making this delicate work an important point to be borne in mind is that all handling of material should be done as lightly as possible, and the work should not be stiff, but free. Individuality is given to the work by making original designs. Imitating from nature, as before suggested, is the best possible way. Endeavour to catch something of the innate

charm in the natural flowers and other objects, and freshness, vigour, and withal a delicacy will be the result in the design formed. Conventional natural forms, however, if well treated, are in excellent taste. A study of the design of the pillow will illustrate my point. If the embroiderer cannot make her own designs, a study of fine old needlework will give fresh ideas, and many of these can be traced from patterns supplied by art needlework stores, and successfully used in ribbon embroidery.

Very little has been done in using figured materials with designs ornamented by ribbon work, but for the girl who is not able to draw a wide field is open, as all sorts of cretonnes and dimities, or even materials where the colour is in one tone, and the pattern woven by a mercerized process, can be brought into service for effective ribbon embroidery. Some of the bold designs sold for appliqué are particularly well suited for ribbon work, and as ribbons can be found of every width and every description, there is practically no end to the variety obtainable for those who wish to develop this beautiful art to its fullest extent.



CUSHION OF HEAVY CORDED SILK WITH HOLLYHOCKS SHADING FROM DEEP RED TO PALE PINK

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ASTOR LENOX AND
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CHAPTER XXIV

RAFFIA NEEDLEWORK

WITHIN the last few years raffia has not only been used for basketry, lamp shades, candle shades, and mats, but it has been used as thread in needlework in place of silk or linen. Raffia is a tough fibre, native to Madagascar. It comes in a pale straw-colour, and takes the colour of any dye, especially those of vegetable origin. As it is as pliable as silk and as tough as linen twine, it is particularly adaptable to needlework.

Delicate strands of raffia fibre should be secured for this purpose, and a fine long darning-needle must be used for working in the strands. Darning is one of the most attractive forms to which this sort of needlework can be applied, and a simple stitch running horizontally across the material without any recrossing is best suited to this style of work. The designs for such needlework must essentially be bold. Raffia darning

would be singularly out of place on fine fabrics, but on Russian hand-made crash, with its soft silver grey background, it is an ideal decoration well adapted for porch pillows and summer portières. In going through the kitchen linen department in a large store, many coarsely woven linens may be found from time to time that are suitable for such needlework. Rough oatmeal cloth, coarse towelling, and huckaback can any of them be used. Not to be despised also is undyed burlap—it makes a charming summer portière when decorated with raffia darning.

Raffia may be used to ornament the grass pillows that are sold for porch use. Some strong bit of colour introduced in some quaint design adds greatly to these simple piazza furnishings. Any floral design would be attractive when worked on grass-cloth, and could also be used for grass-cloth lamp shades with good effect. As it would not be so effective made in the fluted shades, it would be better to confine the shape to panels; dragon-flies, or flower motifs, etc., could be worked across the bottom of each panel. The grass-cloth suitable for making lamp shades is not the same as that used for porch pillows. It is sold by paperhangers for walls,

and remnants can sometimes be purchased for very little. Grass-cloth lamp shades are usually finished off with dull gold braid, but gold braid and raffia are not akin, and suitability must always be the first consideration when making anything for the decoration of the home, so that some other binding must be substituted.

Covers for music portfolios or magazines are particularly attractive when covered with grey Russian crash and ornamented with raffia darning. Photograph frames can be bought for ten cents all ready for painting on. When these are covered with linen which has been decorated with a design in darning, they make unique and interesting photograph frames, and are appropriate for gifts.

Another useful novelty could be made from a horse-girth, in the natural colour, or it could be dyed to match a gown, and when ornamented with raffia darning and worn with a buckle of Arts and Crafts jewellery it makes an interesting addition to a pretty gown.

Another idea for raffia darning is to have a stole of grey Russian crash ornamented with a strong design in raffia. This could be used as a trimming for an evening coat,

and, with cuffs to match, would give it an individual touch that would be very charming. It should be finished off with a black cord. The grey crash would go with almost any colour, the darning accenting the colour of the cloth.

Grass boxes are also well adapted for ornamenting with darning. As a knotted thread could not be pulled through the mounted box, it would be well to begin the darning with two or three stitches in the wrong direction, and then cover them in returning, or hold it in place with a little gum. The same method could be employed for finishing the raffia off.

Appliquéd pillows and portières are effective when ornamented with raffia, using it for outlining coarse linens, especially when they are laid on to the burlap or canvas. Two or three strands of raffia are laid round each leaf and petal. Couching is a blanket stitch pure and simple, and when made very coarsely looks well.

Large heavy frames covered with burlap are invaluable in screening a door, and are always decorative wherever they are placed. Bold designs outlined in raffia make very beautiful screens. Select a dark colour, and

embroider it almost the width of the lead lines in stained glass windows. The effect is extremely decorative, and quite a novelty.

Bold irises growing up from the bottom of the screen would be a suitable motif, while the upper part of the screen could be ornamented by a branch of a tree—maple or horse-chestnut, or some other leaf that has a characteristic outline. Instead of running this all the way across the screen, allow it to come in at one side almost to the top of one of the panels, and branch on to the second. This would be a much more artistic way of ornamenting the screen than if it were run across the three panels.

Raffia can be put to innumerable uses, the pliable nature of the grass, and the beautiful colours in which it is dyed, and the quickness with which it can be worked make it a valuable addition to the ever-increasing list of good things that craftsmen use to-day for decorating a simple and artistic home.

CHAPTER XXV

APPLIQUÉ

APPROPRIATE and artistic schemes for curtaining the home can be made from the infinite variety of fabrics now obtainable for appliqué. A description of these fabrics, with suggestions as to how they may be made, should be of help to girls who wish to do something worth while, and yet who do not want to exhaust their energies by hours of detail work.

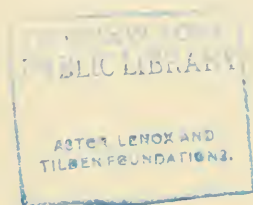
Our illustrations show some very effective work on bold strong lines which will be helpful to those interested in the problem of house-furnishing and decorating.

FABRICS TO BE USED FOR APPLIQUÉ

Linens play an important part in the making of beautiful appliqué hangings, not only as a background but more especially for the appliqué itself. These can not only be



MODERN APPLIQUÉ ENTAILS A MINIMUM AMOUNT OF LABOUR FOR
THE ARTISTIC EFFECT OBTAINED



obtained in plain colours, but are found in iridescent effects. The warp and woof being of contrasting colours, a charming play of varying light and shade is produced, shimmering from green to a soft pink, or from gold to a deep russet, while some bloom linens tone from purple to soft old rose. These changeable linens are very charming for an appliquéd flower, while the neutral green or self tone would form a contrast for the leaves.

Another material which is better adapted for the background than for the appliqué is craftsman's canvas or arras-cloth. The charm of this material lies in the quality of its texture and in its wonderful range of colours. Being woven of jute and linen, and afterwards dyed, there is sufficient variation in the way the two threads take the colour to lend a remarkable interest to the surface. They can be obtained in all shades of red, yellow, foliage brown, blues of every description, mahogany, and mulberry shades. Of course it is necessary to choose the linens that combine well with the canvas decided upon for the hanging. Craftsman's canvas is 50 inches wide, and costs \$1.25 a yard.

Many people prefer the natural colour of

unbleached linen for the groundwork of appliqué, especially for the furnishing of a summer cottage. There is a softness in the neutral ground that makes them available where a dark colour or a white linen would not be in harmony.

A kind of unbleached linen known as homespun can be obtained, 72 inches wide, at \$2.00 a yard. This material can not only be used for curtains but is useful for making luncheon sets, and looks very well when the room is furnished with mission furniture.

Another material which is often used for appliqué is called toile. This material consists of a ground of coarse grey linen with strips evenly broken of olive green or terra-cotta. It will hold its colour after repeated washings, and costs \$1.40 yard; it is 52 inches wide.

Caddice is another material which can be utilized for appliqué. It is 75 cents a yard, and 52 inches wide. It is soft and pliable, and comes in four colourings, red, rich green, willow green, and the natural linen colour. It is especially useful for curtains in a bedroom, and when enriched with effective appliqué is very decorative.

Denims and art tickings make effective and

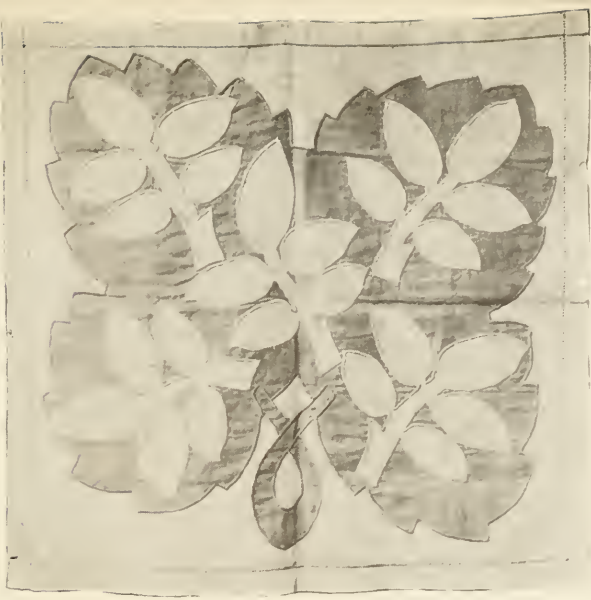
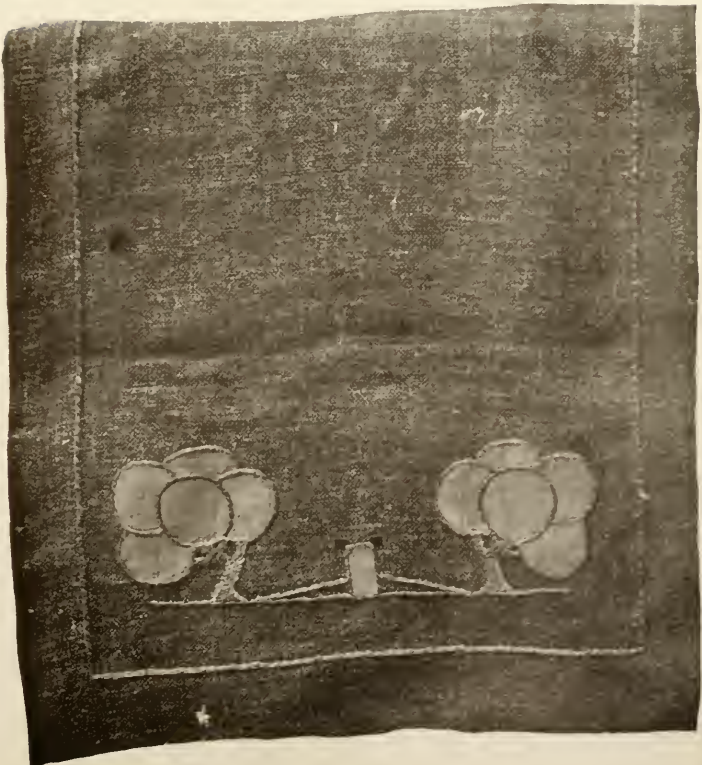
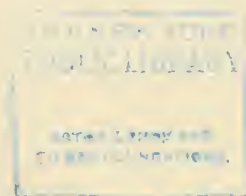


TABLE-CLOTH OF IRIDESCENT BLUES AND GREENS



SIDEBOARD CLOTH OF COARSE BROWN LINEN



inexpensive backgrounds for curtains and portières, especially for a summer cottage where draperies are needed only for their colour value. Denim can also be used for an appliqué, but care must be taken when working with it, as it frays very much more than linen, and requires very careful handling. The appliqué must be overcast as soon as it is cut out, or the embroiderer will find that she needs a very broad line of needlework to cover the edges.

STITCHES AND METHOD OF APPLIQUÉ

The modern appliqué is very simple, and entails a minimum amount of labour for the artistic effects obtained. The piece to be applied is first basted into place, but should not be glued or backed like the appliqués of a few years ago. It is better to overcast the applied part to the material with fine silk or cotton the exact colour of the foundation.

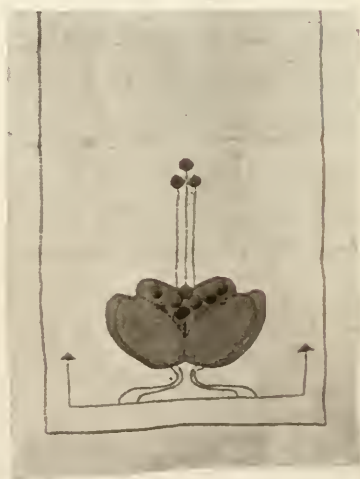
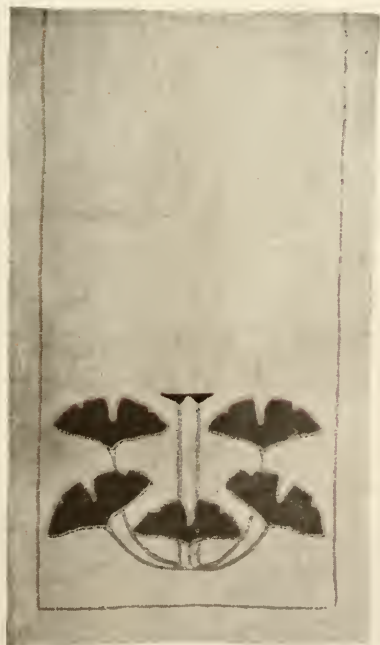
There is a choice of several stitches for the outlining of appliqué. Our illustration showing a corner of a tablecloth shows an edging of satin stitch. The groundwork is iridescent pale blue hand-made linen, with an appliqué of soft green which almost covers the blue

cloth. The green has another piece on it of pale blue. In making appliqué of this kind, it is best to work the pale blue on to the green before the latter is basted on to the tablecloth. The satin stitch takes longer to do than couching or outline stitch, and requires considerable care in the workmanship.

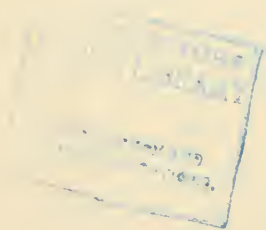
Just now couching is very popular, as it makes an attractive finish, and yet is so quickly done. It is simply a coarse buttonhole stitch done over two or three strands of linen floss. Sometimes the hem line is finished with a line of couching, which is useful for repeating the dominant colour of the appliqué.

The method of working outline or embroidery stitch hardly needs an explanation, as every girl is familiar with it. Another stitch is known as the lapped outline stitch. The name explains itself, as the needle goes back so far that the outline stitch is almost doubled. For a portière and other large pieces of work, a cotton cord is often used in place of couching ; it is very decorative, suggesting the lead lines of leaded glass. All kinds of decorative cords can be picked up for a few cents at the notion counter, where basketfuls are often on sale to clear out old stock.

Drawn work may be used as a finish for



HOUSEHOLD LINEN LENDS ITSELF TO APPLIQUÉ



portières, table-covers, and window draperies. The threads should first be drawn to the desired depth, and the edges then finished with a double row of couching, hem-stitching, or cross stitch.

The sideboard cloth ornamented with a ginkgo motif has an appliqué on grey home-spun linen. The couching is of biscuit-colour. Orange is introduced in the seed-pods, which gives opportunity for a brilliant spot of colour.

The sideboard cloth or bureau scarf with the seed-pod motif is made on coarse unbleached linen. The appliqué is in olive green, while the seed-pods are outlined in golden brown floss. The same shade marks the hem line. This is done in outline stitch.

The sideboard cloth of craftsman's canvas is appliquéd with linens. This horse-chestnut design is very effective for the base of a portière. The canvas is of dull olive green, while the appliqué is made from old rose and green bloom linen. The nuts are also in soft old rose. All the appliqué is outlined in brownish yellow.

The seed-pod motif has also been used for ornamenting the portière beneath the grill work. The groundwork is almost corn-colour, while a good russet shade is used for

the pods. The stems and outlines are all warm green. This portière is the first attempt at appliqué of a young bride who had become enthused with seeing some beautiful work from the craftsman's workshops.

Very unusual is the beautiful appliqué of dragon-flies. The groundwork is black net, while the appliqué is fine green felt, imported from Norway. It is beautifully worked in satin stitch, and all the stem lines and the wings of the dragon-flies are embroidered in silk. The flowers are done in beautiful tones of yellow outlined with the finest embroidery. Our illustration shows only the ornamentation at the top of the curtain. There is as much work at the base as there is at the top of the curtain, the colouring, of course, being the same. Three or four pair of these exquisite curtains were made for one room, the colour scheme of which was emphasized in these curtains.

There is hardly any needlecraft to-day which gives such infinite scope as appliquéd portières. Fortunately we are at last realizing what is good in art, and modern craft-workers vie with each other in trying to produce original and beautiful results. Greater strides seem to have been made in portières than in



APPLIQUÉ OF GREEN FELT ON BLACK NET

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almost any other kind of decorative needlework. Aim at the effect, and endeavour to get beautiful results without too much elaboration. The work is apt to lose in decorative value by being too closely covered with stitches. A rich effect can be obtained by the use of handsome material and very little needlework, depending mostly for the results upon the beauty of the design.

The illustrations of portières shows some beautiful hangings worked by the pupils of the Pratt Institute at Brooklyn. They are partly of appliqué, while the background is made interesting by swirls worked in embroidery.

The portière with the dragons is made of silk crinkled tapestry, a charming imported material, obtained at any upholsterer's in a complete line of colouring. Some of these tapestries have a plain surface, while others are made in a two-toned weave, giving a changeable effect that is quite interesting. The silver grey is one of the most beautiful shades for ornamenting with appliqué for portières. Nile green also makes a good background, and is shot with a darker colour. Then there is an old gold toning to brown which makes a very beautiful background for

appliqués, providing the stitching and applied design are chosen to harmonize. The dragons can be purchased at any first-class East India house. They are made of cotton, and when used for appliqué they are very beautiful when they are almost covered with silk stitchery. In the dragon portière very little of the original creatures is visible, as they are almost covered with silken stitches worked in various directions to suit the contour of the dragons. Quite a number of colours are used. A pearly grey silk is chosen for the high lights. There is something very beautiful and graceful in the needlework swirls on the background. Heavy plush is appliquéd on the bottom of the curtain, but a plain band would be more decorative.

The portière with the trellis-work at the top is formed by a panel of corded silk being let into the plush. Six beasties bought ready-made are charmingly scattered at irregular intervals on the silk. In doing this panel a trellis of chenille is worked first. Variation is given to the background by a paler shade being introduced in the middle width of silk which is run horizontally across the portière. The designs are basted on before the trellis is worked, and they seem to stand out more,



A WELL-DESIGNED APPLIQUÉ WITH EMBROIDERY



because the trellis pattern does not appear behind the heads of the beasties. It will be noticed that they vary somewhat, not only in design but in their treatment. The effect of seaweed is cleverly indicated in the designs on the background.

One of the illustrations shows more difficult and intricate work. It is made from an Oriental piece of brocade, which is brought into relief by the beautiful shading which emphasizes the design. The pale delicate tones should be seen to be appreciated. A quaint brocade of small pattern is used for the side hems. Stitchery is also added to these. Such a work of art would be a treasured possession in any family, and yet what infinite pleasure it would give the worker, not only in the doing of the work itself, but in the choice of colouring.

The embroiderer finds out for herself many ways of individual treatment. The design can be strengthened by outlining it with a colour which goes well with it, and it can be made to look flat by the colour of the ground-work being used. Silver and gold gives the appearance of richness, and a double outline causes the pattern to stand out in strong relief. Such needlecraft brings into play all the

artistic faculties. In it the skill of the needle-worker can be carried to its limit. It must not be forgotten that the success of the whole depends upon the design. Such work calls peremptorily for skilled needlecraft, which must of necessity be effective, and lend itself to dignity of design and nobility of treatment.

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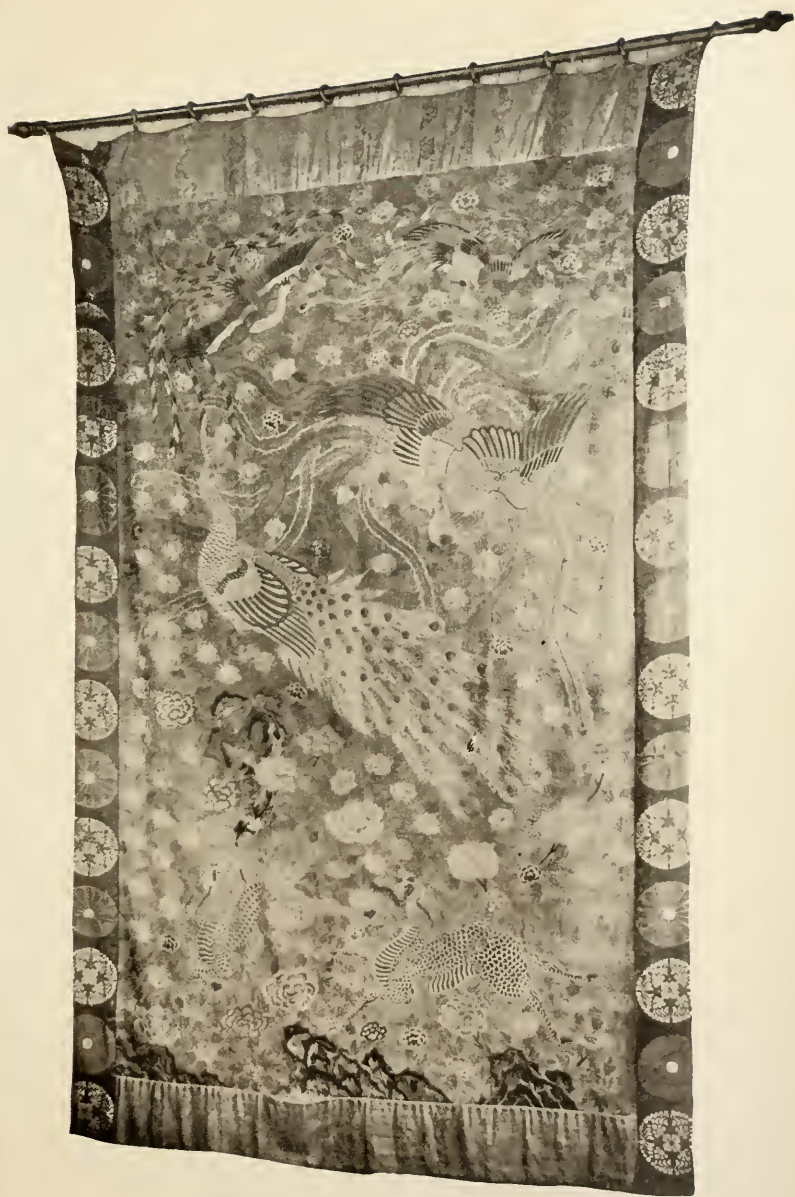
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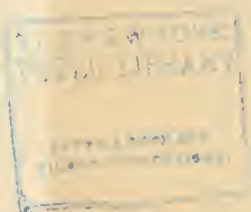
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ORIENTAL BROCADE WITH APPLIQUÉ AND THE OUTLINING
OF PARTS OF THE BROCADE



Opportunities for Style Creator As Seen in Handiwork Display at National Museum.

WASHINGTON, February 26.—Attention has recently been called to the opportunities open to the style creator lying within the arts of certain quaint and little-known peoples. Especially is this applicable to the natives of parts of Java who dress in home-made costumes of gayly printed cotton. Their method of dyeing or printing, and their designs and color schemes are both unique, and may well be imitated and applied to better goods for general trade rather than the small distribution they receive at present.

The National Museum at Washington has just received a consignment of these native garments obtained directly from the Netherlands East Indies Commission at the close of the Panama-Pacific International Exposition at San Francisco. The exhibit includes several different types of Javanese dress decorated by what is known as batik-work.

The Javanese batik process is very crude, and yet is possibly the origin of the advanced method of resist printing followed to-day in various civilized countries. It is closely allied to the stencil method both in principle and effect. The hand-made Javanese batiks are produced from common cotton sheeting, the only cloth procurable in their country.

Four main colors are used in this work: indigo, red, a tannin brown, and a rather strong yellow. They are sometimes allowed to overlap, which results in the additional color effects of black, green, and orange. All the dyes are of home manufacture, made from native ingredients. The manufacture of the dyes takes considerable time also, and when it is considered that from one to three weeks is required to complete the application of each color of the three to be employed, and that each step of the process has to be repeated on the other side, it is seen what a long, tedious, and expensive process this native method is.

It is reported that a more advanced method has been tried successfully in Holland, where a similar system of coloring has been applied to plushes, silks, and velvets. Strangely enough, the natives of Java seem unable to improve



THE PROGRESS OF AMERICAN ART INDUSTRIES IN LATE YEARS

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SON

your humor, you will not be able to play through an hour and into the comedy room where Mrs. Lane will listen to your play, my, for Mrs. Lane will to become Laura Hope. If you catch her before she you will have an opportunity that stunning white tears in the last act of comedy," at the Comedy. It is worth hurrying

if anything except dis- tinguished laughing, which tattered his case to really, you know I got out talk on the stage. thought," she continued. very beautiful picture of woman who, though bored and of society affairs, he is a dilettante. They think that it will be a novel that pink sort of thing. It seem to realize that ended as a warning to imitate shedding their "free life." Why—here I for a moment to running table drawer—"look

and saw that "this" a "bid anti-suffragist. Miss Crews on her that every suffragist

of suffrage" preached time however in the to go through the in that beautiful pink when it's so dreadfully

Miss Crews, taking the her face and spreading, ston's admiring gaze freely easy now. I've but at first I had a time keeping my feet and preventing that a fluffy stuff on the a into the coffee cup ough, is running around now. I'm never quite have a tumble."

and to know if Miss M. "rased on her "star." reflectively, "I didn't he audience had that know what I mean

Some audience seem usually to get out a cloud of gloom. But his first it was awfully nice and comforting."

Miss Shannon believes that women in general, and New York women in particular, would do well to profit by the truths told in "Years of Discretion," in which she is playing at the Belasco.

"It's all very well for a woman to make the best of her good looks," she said when seen the other afternoon in her dainty chintz lined dressing room at the theatre, "but when it comes to absolute dependence on artificial aid to prolong a youthful appearance—that is entirely wrong, even wicked. For there is something about that kind of deception which gets into a woman's very nature and makes her hard and unrel. It is a sad thing to see a woman of if young and beautiful. Besides, if one only knows how to take the proper advantage of one's good features, it is really a simple matter to look well with the fashions of to-day."

"There may have been some extreme years ago for a woman of a certain age to dye her hair and lacquer her face, but now, when her face is turned to red out of a hideous, out bodied, and her figure was enclosed in a few hundred yards of long hanging material, but with the present fashion, one can take advantage of one's natural figure. It is only nowadays to procure a gown that will let the body be seen. A youthful appearance in a woman is no longer a matter of a few more miles on the lead or a few less lines on the face. It's a matter of her personality and her manner. Besides, I think that a woman who forgets her youth and cultivates her natural charm and sweetness is worth a thousand of those tight, round sausage-like dames who go through tortures and acquire the most crabbed attitudes just to delude themselves that they are fooling their friends. Hardly any one is deceived by them, though; their discomfort is too obvious."

"Why don't you stop me when I go on like that?" asked Miss Shannon, suddenly, looking up abruptly at her visitor. "Are you really interested?"

The visitor clamored for more awful disclosures about the evils of artificially prolonged youth.

"No," she laughed. "It is all in the play and I am not going to say it off the stage. But, really, I would like to have one of these pseudo-youthful ladies out at my long garden."



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m H.

